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GYMNASTIC EXERCISES

LONDON
PRINTED BY SPOTTISWOODE AND CO.
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NEW YORK
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PREFACE.

In presenting the following collection of Exercises to the public, I have much pleasure in stating that the whole of them have been performed by myself and pupils, and are, consequently, within the capacity of any who may deem them worthy of their time and attention.

Were I to have attempted to describe every feat which is capable of being performed, I fear I should tire many of the youthful aspirants to these recreative exercises; nevertheless, I have selected such, as I sincerely trust, will give the greatest satisfaction; and I am of opinion that any student of the Gymnasium who may enter upon the simplest of the following, will not rest contented until he has accomplished the most difficult, and will thus be enabled to outstrip the whole of his companions.

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When the young Gymnast has achieved the whole of the following Exercises he need never fear to venture upon any other kind of athletic exercise which may be proposed for his performance.

In France and Belgium Gymnastic Exercises form a part of the education of youth; and happy is he who succeeds in achieving any one feat which leaves him sole master of the Gymnasium.

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The athletic exercises practised among these nations consisted of wrestling, boxing, and other such exercises, requiring great strength. Prizes were given to those who came off victors, likewise many privileges were granted to them.

The Olympic games, the chief of the festivals of the Greeks, were celebrated every fifth year, and consisted of religious ceremonies, athletic contests, and races.

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The Olympic games, the chief of the festivals of the Greeks, were celebrated every fifth year, and consisted of religious ceremonies, athletic contests, and races.

Under the emperors of ancient Rome places were built in which the Romans were to perform athletic exercises. These places were called Gymnasia.

The word gymnastic is derived from a Greek word signifying *naked*, it being customary among the Greeks to strip themselves of the whole or a part of their clothes before engaging in any of the athletic feats.

As early as the time of Plato gymnastic was made a part of medicine, for the purpose of counteracting the sad effects of luxury and indolence, which at that time were greatly increasing; and after it was reduced to a complete system officers were appointed by the state to superintend the performances in the gymnasia built for that purpose.

The immediate effects of gymnastic exercises is an increase both in size and power of the parts exercised; and that in proportion to the exertion made use of, so a part increases not only in strength, but also in size.

When a person engages in a certain avocation which requires an amount of muscular exertion, he not only improves in strength, expertness, and dexterity, but the muscles are brought into unusual action, which causes them rapidly to increase in size and vigour, whilst the rest of the body which has not been exerted so much will be found to lack that which the muscles have gained. Therefore it will be evident, if the whole body be exerted and brought into action as near as possible at the same time, and for the same length of time, that

the amount of additional strength gained will be distributed all over the body alike. Still if the body be not over-fatigued, all the other parts of the body sympathise with the improving condition of that part which is chiefly exercised, the circulation acquires new vigour, and all the functions are carried on with increased activity, owing to the blood being thrown into all the parts of the system with unusual force.

Besides, by exercising the body as just described, the mind is made capable of enduring a more prolonged application to the various and necessary branches of education. If a person, who for the greater part of the day is confined to an office, finds his health declining, he is sure to be recommended more bodily exercise to relieve the overburdened state of the mind.

Yet excessive exercise produces very nearly the same injurious results as inactivity, and should therefore be carefully avoided.

If gymnastics formed a part of the education of youth, the health of the young persons, of whichever sex they might be, would be greatly benefited.

Every school or place of learning should have the means at hand by which youth may, after the mental labours of the day are over, exercise themselves, to give that exertion to their bodies which would be acknowledged by all who took advantage of those means, as having given them sufficient proof that health in after

life is owing greatly to the active exertions in which they were engaged in earlier days.

Gymnastics should be taught by the master, and practised by the pupil, as combining amusement and education, with the best means of obtaining bodily strength and activity; for gymnastics exercise on the mind as well as on the body, thereby securing beneficial influences to both.

Mr. Long, M.D., writes,—"I wish to say a few words to 'whom it may concern,' on the use of the swing—one of the gymnastic exercises—as a preventative and cure of pulmonary disease. I mean the suspending of the body by the hands, by means of a rope or chain fastened to a beam at one end, and to the other a stick three feet long, convenient to grasp with the hands. The rope should be fastened to the centre of the stick, which should hang six or eight inches above the head.

"Let a person grasp this stick, with the hands about two feet and a half apart, and swing very moderately at first, and gradually increase as the muscles gain strength from the exercise, until it may be freely used three or four times a day.

"The connection of the arms with the body (with the exception of the clavicle with the sternum or breast-bone) being a muscular attachment to the ribs, the effect of this exercise is to elevate the ribs and enlarge the chest; and, as nature allows no vacuum, the lungs expand to fill up the cavity, increasing the volume of

air—the natural purifier of the blood—and preventing the congestion or deposit of tuberculous matter.

"I have prescribed," says he, "the above for all cases of hæmorrhage of the lungs and threatened consumption for thirty-five years, and have been able to increase the measure of the chest from two to four inches within a few months, and always with good results. But especially as a preventative I would recommend this exercise.

"Let those who love life cultivate a well-formed, capacious chest. The student, the merchant, the sedentary, the young of both sexes—aye all, should have a swing upon which to stretch themselves daily, and I am morally certain that if this were to be practised by the rising generation, in a dress allowing a free and full development of the body, thousands, yes, tens of thousands, would be saved from the ravages of that *opprobrium medicorum*, consumption."

From the above it will be seen, that by using such a simple apparatus as a swing, strength and health are insured. What therefore must be the benefit to be derived from the daily practice of various other exercises upon differently constructed apparatus? As various as there are different apparatus, and likewise exercises to be performed on them, is the answer that ought to be given by every one.

Cultivate the strength of the body as well as the mind, and let both grow together, and the boy will

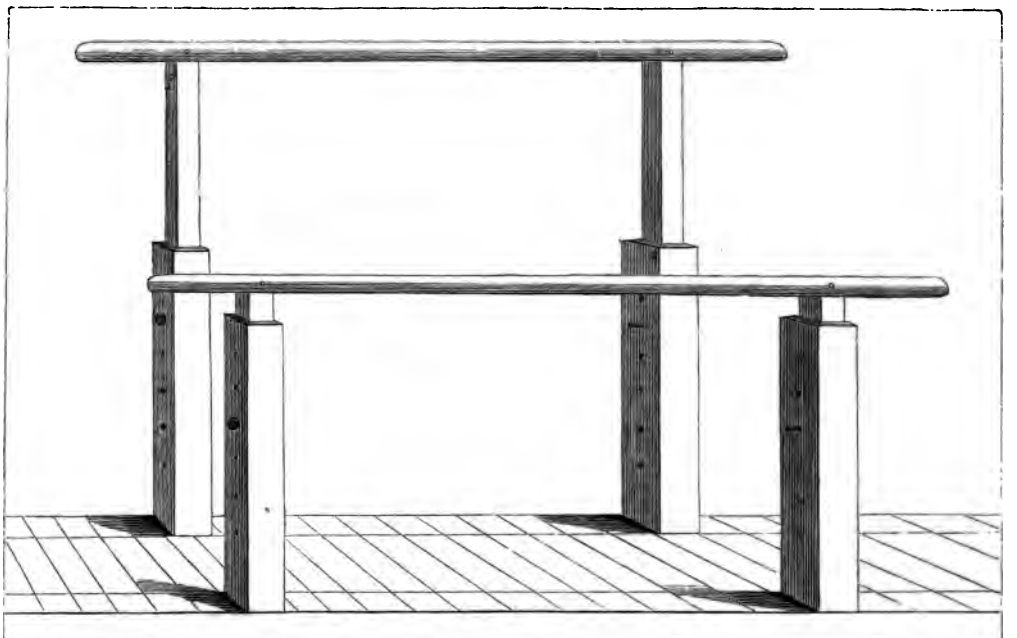
make a better man in every respect, than a boy whose mind only was thought of. There is an old saying,

> "All work and no play
> Will make Jack a dull boy;"

and chances are against him, if a certain time be not allotted for him to recreative exercise of some sort or other, that he will not arrive at mature years.

Can any one, when the body is indisposed, take his place or position in life with as good a will as when the body is in possession of its full health and strength? I answer, No!

It must be remembered that the muscles in the arms and legs do not alone constitute a strong man, for to be so, his strength must be equally distributed all over his body, from his head to his toes alike, including the knees, hips, spine, wrists, shoulders, &c. &c.



PARALLEL BARS.

DESCRIPTION OF APPARATUS.

PARALLEL BARS.

OUTDOORS.

If the apparatus be intended for the open air, four posts must be fixed in the ground, perpendicular on the inside, eighteen or twenty inches apart at the ends, and about five feet six inches apart lengthways, which will give the form of a parallelogram. These posts should be about three feet six inches* above the ground, and made of fir poles as near the same size as possible.

The bars should be of elm, and free from knots, and should extend about a foot beyond the posts at each end, which will make them seven feet six inches long. They should not be perfectly round, but slightly flattened on both sides, and about two inches and a half in the longest diameter.

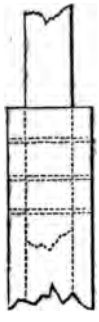
There should be a kind of shoulder in those parts of the bars which rest on the posts, which will give additional strength to the bars. The ends should be slightly rounded to fit the hollow of the hand.

* Four feet would not be too high.

INDOORS.

If this apparatus be erected in a building, I should recommend the posts to be made so as to allow the bars to be lifted higher, if required, and according to the height of the gymnast, or the height required to perform the feat.

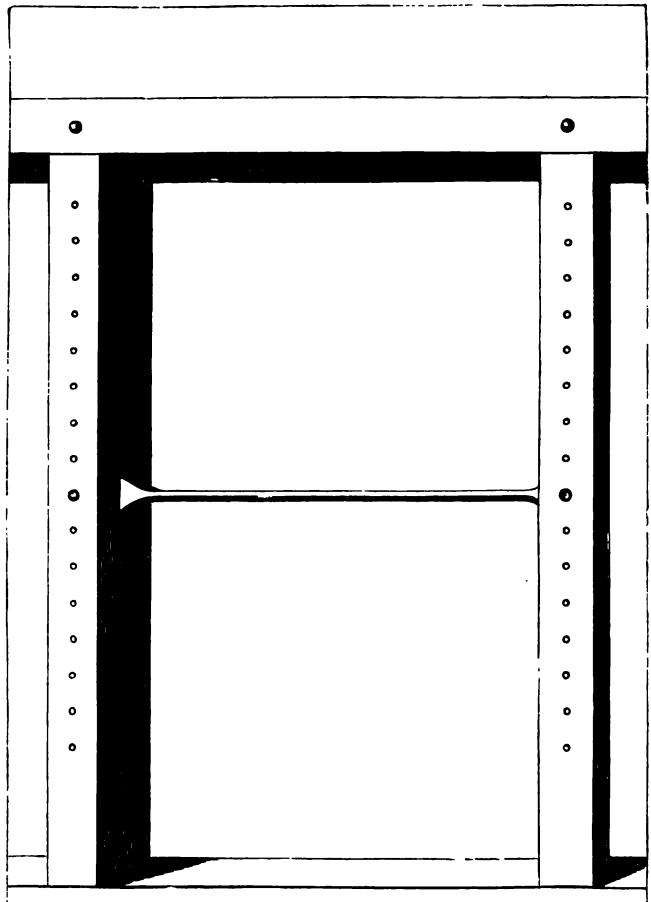
Let the case for each post be made to allow a two-inch square pillar to slide up and down inside it, thus :—



The case should be made of wood from three quarters of an inch to one inch in thickness, according to the strength of the wood used.

Holes (represented by the dotted lines) must be bored through both pillar and post, into which an iron pin is put to keep the bar at the required height.

These holes are to be made in the direction of the



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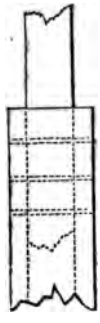

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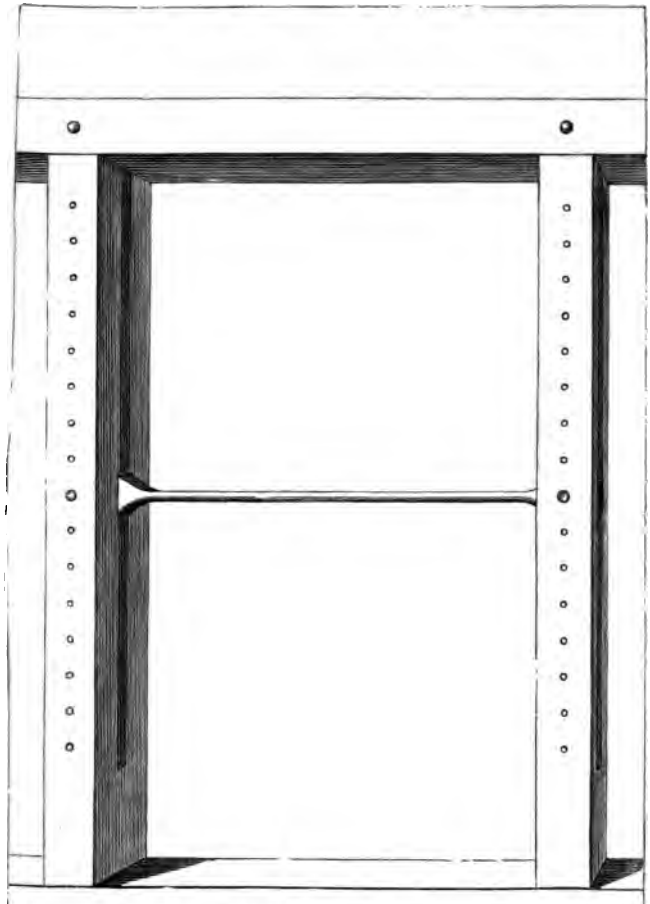


HORIZONTAL BAR.

bars, about four inches apart and six in number, counting from the top.

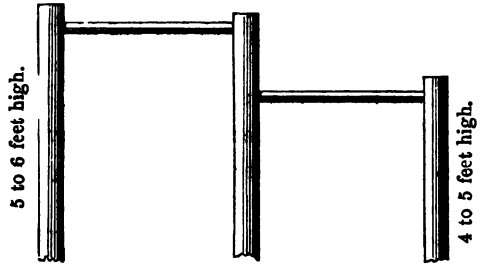
All four pillars must be alike in every respect.

The bars and posts should be neatly mortised together, and for further security a wooden peg should be used instead of an iron one.

THE HORIZONTAL BAR.

FOR OUTDOORS.

Three posts, one lower than the other two, are to be fixed in the ground about six feet apart, and a bar to be fixed in either two of them, thus:—



The bars, if made of wood, to be about a quarter of an inch more in diameter than the parallel bars, as greater strength is required in some of the exercises, during the performance of which the bar is very much bent.

If these bars be made of iron they should be much

smaller, and should not be used if rusty, but first rubbed with a piece of coarse sand-paper, otherwise the clothes will suffer. I prefer the wooden to the iron bar myself for several reasons, and should therefore recommend it.

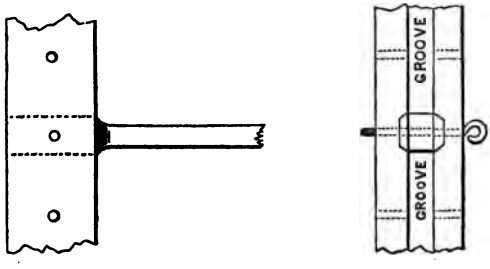
FOR INDOORS.

Two posts, about eight inches square, are to be so fixed as to withstand any amount of work on the bar without being loosened in the ground.

Previous to their being fixed, a groove about six feet long should be cut through each post to about eighteen inches from the ground.

About twelve or fourteen holes should be bored through the post within the length of the groove for an iron pin to pass through, to keep the bar at the required height.

The bar may be of the same length and size as required for the outdoor, but it should have a small shoulder at each end, in order to rest firmly against each post, thus:—



The bar may then be lifted to any height required.

THE SUSPENDED BAR.

This I prefer to what is generally termed the "triangle" for two reasons: first, the ropes need not be but one half the length; second, that the gymnast can perform a greater number of the horizontal bar feats with the suspended bar than with the triangle. It is constructed thus,—two ropes are suspended from the ceiling or roof of the building by means of crooks, each rope to have a loop at each end cased with iron to prevent its wearing away.

A bar of tough wood, about twenty-eight inches long, is hung on to the ropes by means of crooks fixed to the ends of the bar, thus: —

Fig. 1.

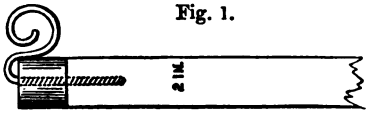
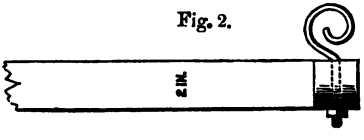


Fig. 2.

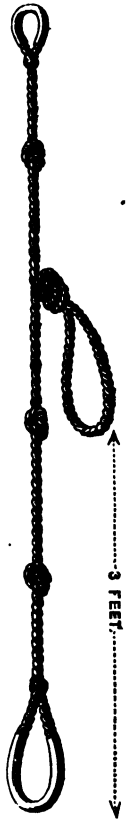


The crook in *fig.* 1 is screwed into the end, and the wood is kept from splitting by an iron ring or cap, represented by the shaded part.

The crook in *fig.* 2 is screwed through the cap and bar, and kept in its place by an iron nut.

An extra iron ring should be fixed in the lower end of each rope, to enable the bar to be hitched on the more readily, the ring to be about the size of the crook.

The ropes should not be less than five-eighths of an inch in diameter, and six feet six inches long.



THE SUSPENDED ROPES.

I think it would be better to describe this apparatus from the following engraving.

This rope is supposed to be about six feet six inches long. The top loop-hole is protected by an iron ring, similar to those with the bar just mentioned. The middle loop is formed by tying the rope as represented, the bottom of the loop to be about three feet from the lower loop, which ought to be bound with some kind of metal*, both to protect the hands from rubbing against the ropes, and to keep the loop always in the same shape, otherwise,

* Brass is mostly used, and is not liable to rust.

when the hands are in them, and the whole weight of the body off the ground, they will be very much squeezed, owing to the ropes not retaining their proper position.

The top and bottom loops should be spliced to the required size. The lower loop to be about eight inches long, and about five inches in diameter near the bottom, which will give, very nearly, the shape of the battledore.

The ropes are to be the same size required for the bar.

A few knots may be tied in these ropes to facilitate the climbing of them; but this should be done after the rope has been well stretched, or at least sufficient room should be left between any knots previously tied for an additional one, in case the rope should be at any time too low.

Many parties prefer these ropes joined at the top, and in many gymnasiums this is found very useful; the rings on the top are firmly bound in with tar-core, after which each single rope is bound round a few times to prevent the rings from slipping out of their places.

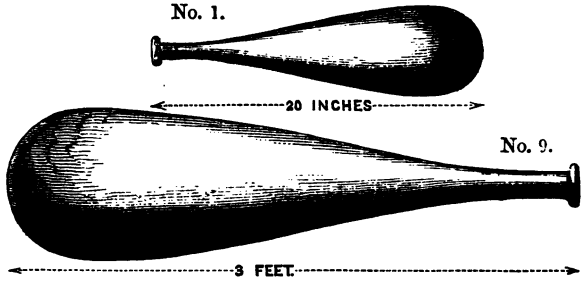
The knots and loops in both ropes must correspond, and the middle loops must, if possible, hang outwards when the ropes are suspended, and not hang between them, or the feet are liable to be caught in them whilst performing an exercise requiring the feet in the air.

THE INDIAN CLUB.

This branch of gymnastics is one I strongly recommend to all classes of society; in using the clubs the chest is expanded, greater freedom is given in the use of the arms, the muscles of the legs and arms as well as those of the whole body are brought into full use, the wrist is strengthened, the grasp of the hand is made firmer, the circulation of the blood is regulated, and the health in general is greatly improved.

These clubs are intended to give such freedom to the limbs as it is reported the Indians have in using their war-clubs or hatchets (tomahawk), although they differ somewhat in shape and use.

The shape mostly used is shown in the following :—



The above illustrations represent the largest and smallest sizes; there should be at least seven sizes between these two, making nine different sizes in all.

As these clubs increase in length they increase in diameter (at the bottom) also. The following table will serve as a guide to the respective sizes in inches.

No.	Length.	Diameter.	No.	Length.	Diameter.	No.	Length.	Diameter.
1	20	$3\frac{1}{2}$	4	26	5	7	32	$6\frac{3}{4}$
2	22	4	5	28	$5\frac{1}{2}$	8	34	$7\frac{3}{8}$
3	24	$4\frac{1}{2}$	6	30	$6\frac{1}{8}$	9	36	8

Two clubs must be made of each size, and each fellow in size should be as nearly as possible of the same weight as the other. They are usually made of hard wood to withstand any accidental blow, for it will frequently happen that they will be brought in contact one against the other, especially by beginners. Again, it is for their weight that they are used; were it not for that the using of them would not have the required effect.

DRESS.

According to the derivation of the word gymnastic, which, as I have before stated, means naked, so should the gymnast be, or nearly so, when performing any athletic exercise, for as the amount of strength is required, so much the more room will be necessary in the clothes he may at the time wear for him to exercise that strength; therefore a kind of loose suit would be the most suitable, as a pair of flannel trowsers made

rather tight round the waist, or kept in their place by means of a leather belt about two inches wide with a strong buckle, and a jacket of the same material, which might, as occasion requires, be taken off, so as not to impede the achieving of any particular feat, for it will often happen that the limbs cannot have too great a liberty. By those who do not prefer the jacket, a short-waisted tunic might be worn, in which case the belt should be worn over it instead of under it.

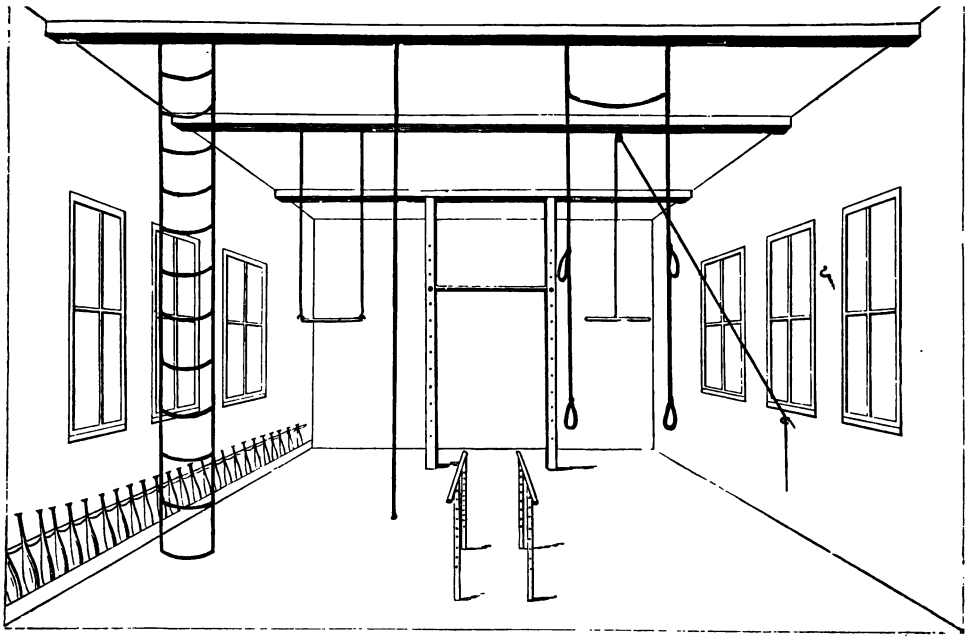
Light shoes should be worn, the heels not higher than those of ordinary slippers.

After performing any exercise avoid standing in a draught, especially if in the least warm; an extra coat should be kept at hand, to throw over the shoulders occasionally, when fatigued.

THE GYMNASIUM.

The apparatus should be arranged in as convenient a manner as possible, insomuch that a gymnast may be able to perform a feat on either of the apparatus without being checked or hindered by another on any of the other apparatus. Sufficient room should be left therefore between each apparatus to admit of feats being achieved on the whole of them at the same time by different persons.

The floor of a gymnasium should be either covered with fine sand or sawdust, about a foot deep, or straw



INTERIOR OF A GYMNASIUM.

covered with a coarse material that will stand any quantity of jumping, &c., on it. On either of the above the gymnast may never be afraid of falling, as he cannot by fair means hurt himself in so doing.

In the interior of a gymnasium I have added a rope ladder, which is not described with the apparatus; it is easily obtained from a ship-chandler, or from a rope-maker, where it could be made any length required.

I have merely illustrated the arrangement of the apparatus, for had I added or placed a gymnast on either of the apparatus it would have obstructed the general view of the Gymnasium, and the following illustrations will point out more clearly their several uses.

THE PARALLEL BARS.

1.—TO GET ON THE BARS.

STAND between the bars with the hands hanging clos to the sides, spring up, place a hand on either bar, an keep yourself suspended.

Another Method.

When the bars are about level with the top of th learner's hips, the hands must be placed on each ba and the legs lifted from the ground, which will caus the whole weight of the body to be upon the arms; th head will now be thrown a little forward.

All that is requisite for the learner to do now is t straighten his arms, thereby raising his body into a upright position. (See *fig.* 1.)

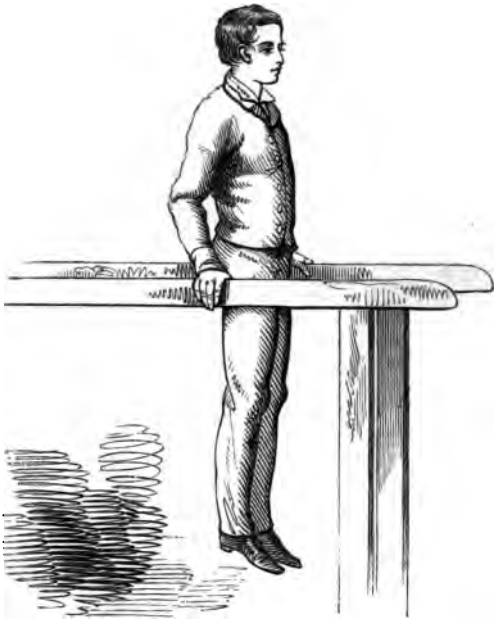
This requires great strength in the wrists as well a in the arms, and cannot be performed but by one wh has strength in those parts.

Practise this exercise with the fingers on the inside o the bars as well as on the outside.

2.—WALKING.

Suspend yourself as in No. 1, at the end of the bar and move the hands alternately along them, which mu

Fig. 1.

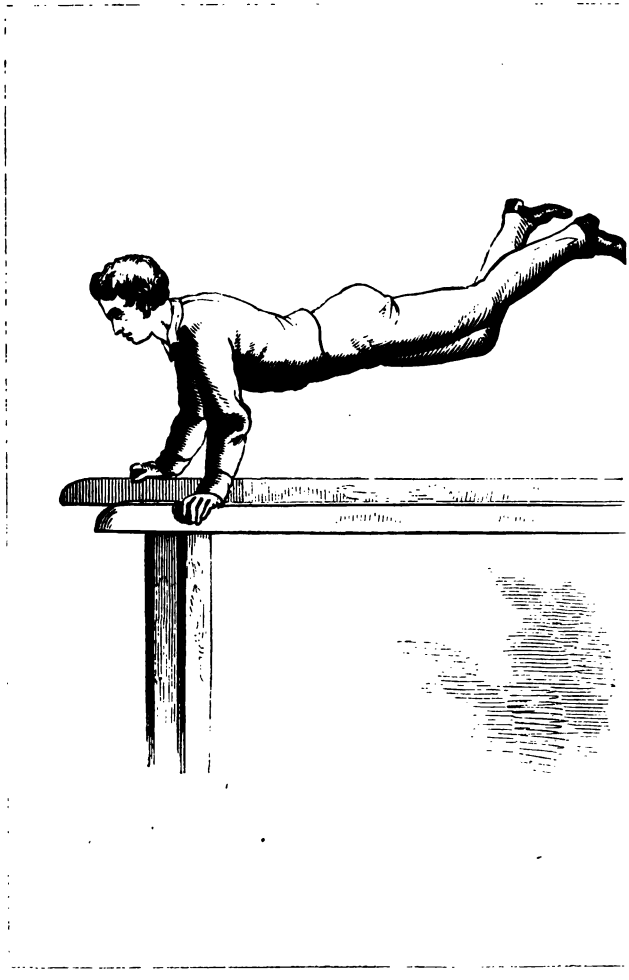


TO GET ON THE BARS.

Fig. 2.

THE FORWARD SWING.

Fig. 3.



THE BACKWARD SWING.

be done without bringing the shoulders out of their place, or hasty and irregular steps being made, the body or legs twisted about, or any like irregularity.

When the opposite end has been reached, the walk must be repeated backwards to the point of starting.

This will be a little tedious at first, but after a little practice it will be quite easy.

This exercise must be repeated with the fingers on the inside of the bars.

The arms must be kept perfectly straight, or you are liable to fall.

3.—HOPPING.

This exercise tries the strength of the wrists very much, and to perform it the learner must mount between the bars as in the last, and instead of moving the hands alternately, they are to be moved both at the same time; the legs are to be kept perfectly straight.

Short steps should at first be taken, and increased in length gradually as soon as the learner can do it with ease.

4.—SWINGING.

In order to get a perfect freedom in the arms and wrists the swing is an exercise to be practised.

While suspended between the bars, the learner must

swing the legs and body to and fro; very little at first, until he can with safety increase it. The legs must be kept close together and straight.

In increasing the swing the legs must be made to do their utmost both in the forward and backward swing, and in either case the feet must be carried as high as the head, the higher the better. (See *fig.* 2.)

In the backward swing the body will be parallel with the bars. (See *fig.* 3.)

5.—JUMPING.

This exercise is similar to the last, but in order to do it the learner must get his body into a good swing, the jump being made between the swing.

Owing to the variety of exercises to be achieved in this, I have, for the purpose of its being the better understood, divided it into parts.

First.—During the swing advance the arms alternately, one in the forward and the other in the backward swing.

Second.—Advance one arm alternately in the forward swing only.

Third.—Advance one arm alternately in the backward swing only.

Fourth.—Advance both arms at once in the forward swing only, as in *fig.* 2.

Fig. 4.

THE LONG LEAP.

Fig. 4.

THE LONG LEAP.

Fig. 5.

THE LONG LEAP. THE FORWARD SWING.

Fifth.—Advance both arms at once in the backward swing only, as in *fig.* 3.

Sixth.—Advance the arms in either the forward or backward swing.

These exercises will be found to make the arms ache, but this will soon wear off after a few times practising.

Keeping one leg (or both) up will make the exercise more difficult, yet this should be also practised.

6.—THE LONG LEAP.

Great strength is required in this exercise. It is performed by swinging the body at one end of the bars and with a sudden spring jump to the other end (or as far as you can), which must be done in the forward swing, and in alighting on the bars again let the arms be bent, as in *fig.* 4. The position of the body in the forward spring is given in *fig.* 5.

7.—THE LONG RUN.

When the body has been swung as high as possible, and in the backward swing (see *fig.* 3), make as many alternate movements of the hands along the bars as you can before you allow your legs to fall.

This must be repeated to the end of the bars

This exercise may also be done with the body in the forward swing, but this is much more difficult; yet it is to be overcome by practice.

8.—THE KICK, OR SPUR.

Whilst swinging, as described in No. 4, draw up either leg alternately and send it out again with all your force; or bring up both legs at once, but it must be done in the back swing and when the legs are high above the bars, or you are likely to feel the effects of your own kick.

The sudden motion of the legs is likely to throw the body a little out of its balance, yet grasping the bars firmly will prevent it after a little practice.

9.—THE TREADMILL.

I hope the young gymnast will pardon my desire to send him so soon to such a place, but, as it is not a place of punishment, perhaps he will give it a fair trial.

Mount between the bars, and in advancing the right arm lift up the right or left leg, as if ascending a flight of steps, and do the same with the left arm.

In drawing up the leg on the advancing of one arm, put it down when the other is advanced.

Fig. 6.

THE CRAMP.

Bring up both legs every time your arm is advanced, ınd send them down sharply when the other is brought orward.

Every time either arm is advanced, lift both legs at nce, and jerk them down again smartly before you ıake another step with your arm.

10.—THE CRAMP.

This exercise is nothing more nor less than the walk-ıg on the hands; but in lieu of the legs being straight ith the body, they are bent into a sitting posture, and ɜpt in that position during the process of walking. ɜee *fig.* 6.)

In order to have the greatest possible weight on the ms, a weight may be placed in the lap, such as a 4 lb. ɜight, or perhaps a 7 lb., or any weight at the option of e learner; but the nearer to the knees that the weight placed the greater will be the strength required in e legs to keep them in the required position. (See ɾ. 6.)

A block of wood may be placed between the feet ıith or without the other weight), thereby giving addi-ɔnal strength to the muscles of the legs to keep the et from separating, so as to prevent the block from lling.

11.—THE BURTHEN.

This exercise wonderfully increases the strength of the muscles in the arms, and also tests to the fullest extent the balancing powers of a beginner, or it may be one who calls himself tolerably proficient in gymnastic exercises.

It is performed by walking on the bars, both backwards and forwards, with a weight fixed on each shoulder.

A little boy sitting on the shoulders will be a very good load for a beginner, and the weight should be increased until he be able to carry one of his own age or weight.

The arms must be perfectly straight, and the advance steps made regularly and not too suddenly.

12.—TO BRING THE LEGS OVER.

Swing between the bars, and with a gradual motion throw both legs over the right hand bar.

With a sudden spring bring the legs between the bars again, and throw them over the left bar. (See *fig.* 7.)

The hands must grasp the bars firmly in this and the next exercise.

Fig. 7.

TO BRING THE LEGS OVER.

13.—THE ENGAGED SEAT.

This exercise is performed by bringing the legs over the bars a series of times, thus :—

Swing at one end of the bars and throw the legs over either bar (say the left hand one first), advance your hands to your front, with a spring bring the legs between the bars and throw them over the same bar again in front of your hands, advance your hands and repeat the exercise to the end of the bars.

The difference in going forward on one bar and returning on the same or the other consists in your placing your hands behind you, and carrying your legs behind your hands *instead of in front as before mentioned.* Or, in other words, to advance the arms are placed in front of you, but to return they are placed behind you.

The learner might swing between the bars every time the legs come between them, which will assist him greatly in throwing the legs over, especially when returning.

14.—TO JUMP OUT.

To perform this the learner must make use of the same motion of the body as in the last; but instead of only throwing his legs over the bar, he must use a

greater impetus to enable him to bring the body over the bar as well as the legs, when the hands must let go their hold, and he will alight safely on the ground, but in so doing the toes must be kept a little pointed to the ground, and in no one instance must a gymnast alight on his heels or flat feet.

15.—TO RISE AND FALL BELOW THE BARS, OR THE LETTER L.

Sit on the ground, grasp the bars with the hands on the outside, and pull yourself up gradually until the shoulders are level with the bars, then as gradually lower yourself, still keeping yourself in the same position, namely, the feet elevated and the legs straight, as in *fig.* 8. It should be repeated two or three times.

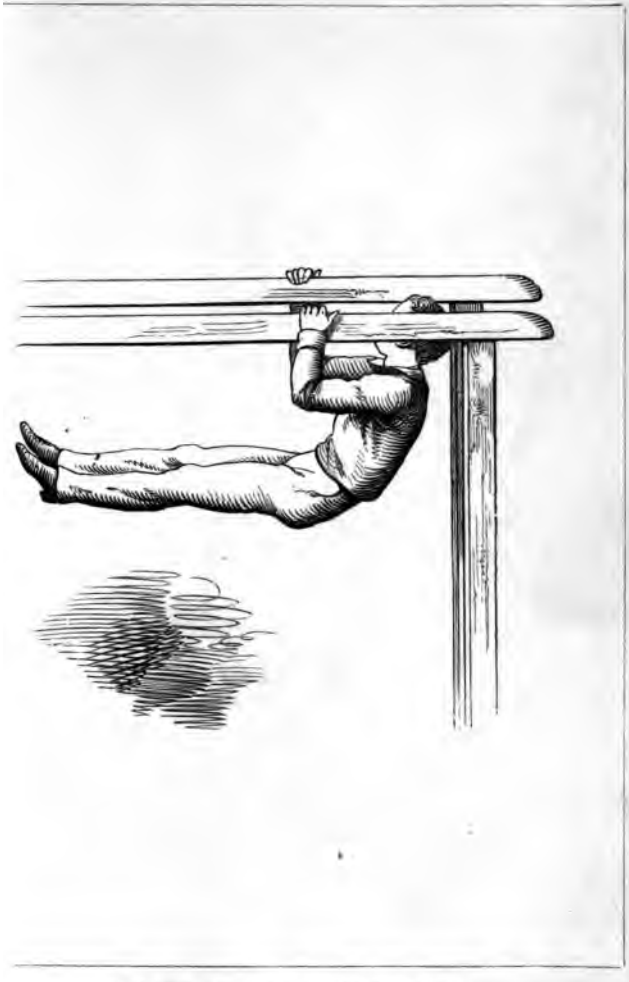
Difficult at first, but soon achieved by practice.

This exercise may be done in No. 1, when the legs are to be gradually raised until level with the bars. The knees are to be kept perfectly straight.

16.—TO RISE AND SINK DOWN ABOVE THE BARS.

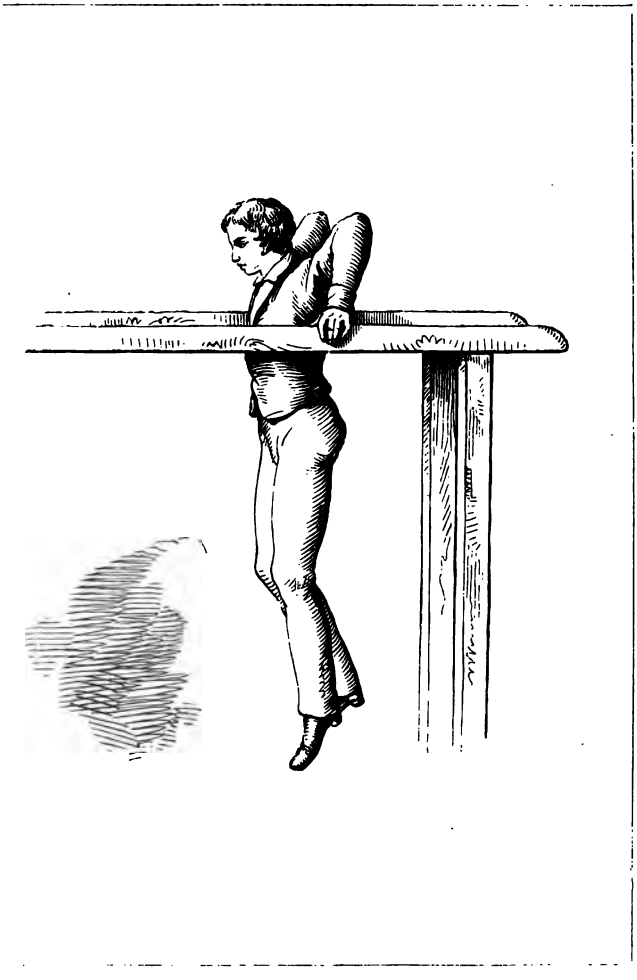
Mount between the bars as in No. 1, grasp them firmly, and lower the body gradually by bending the arms until you assume the position shown in *fig.* 9; but without allowing your feet to touch the ground, then gradually raise yourself by trying to straighten

Fig. 8.



TO RISE AND FALL, BELOW THE BARS,
OR THE LETTER L.

Fig. 9.



TO RISE AND SINK DOWN, ABOVE THE BARS.

your arms; this will put the whole strength of your muscles to their utmost.

Do not allow your body or legs to move or turn about, but take it easily, and after a few times trying you will become perfect master of it.

17.—THE STOOPING WALK.

Proceed as in the last, and when the body is as low as it can be, move the hands alternately along the bars as in No. 2.

The elbows will incline towards each other, thereby throwing the head forward.

Walk very steady at first, and by bending the legs a little, the exercise will be made much easier to perform.

18.—THE STOOPING HOP.

This exercise I ought perhaps to have included in the last, but being to many very difficult, I thought it better to mention it separate.

It is performed by hopping on both hands at once (like No. 3), whilst in the sinking position.

To accomplish this more easily the legs may be drawn up and suddenly jerked down at the time the hop is made. (See No. 24.)

19.—THE PANCAKE.

Mount between the bars as in No. 1. Swing until your body in the backward swing be parallel with the bars (see *fig.* 3), or until you think you can hold on to the bars no longer; when such is the case release your hold and endeavour, whilst in the air, to clap the hands (see *fig.* 10), and on falling catch hold of the bars again without allowing the feet to touch the ground.

This exercise should be done at least three times without resting. It will make the arms ache, but notwithstanding that result it is to be easily achieved.

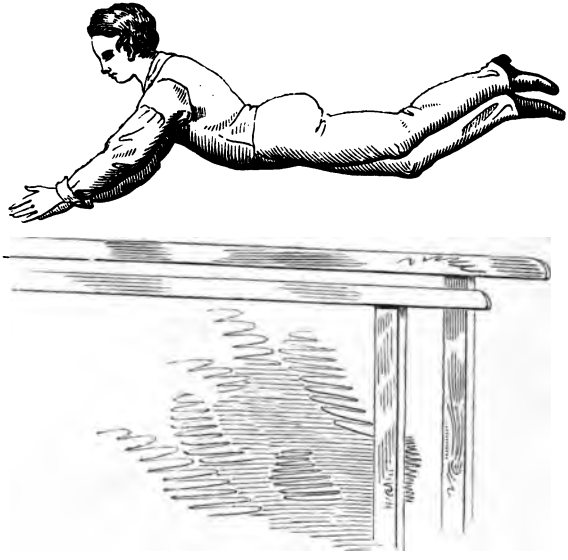
20.—THE EXCHANGE.

Suspend yourself between the bars near the centre, and with a sudden motion of the body, on letting go the bars, endeavour to turn half round and catch hold of them again, thus the bar that was previously held by the right hand will now be held by the left.

Another Method.

Suspend yourself between the bars, but with both hands on the same bar, and with the fingers on the

Fig. 10.



THE PANCAKE.

Fig. 11.

THE JANUS.

Fig. 12.

THE JANUS.

outsides, then with a sudden turn, as last, catch hold of the other bar.

In these exercises the feet must be kept off the ground.

21.—THE JANUS.

Mount between the bars in the middle, and throw a leg over each in front of your hands.

Grasp the bars firmly, and with a spring bring the legs between the bars and carry them behind you, but in so doing cross the legs, as in *fig.* 11, and in giving the body a slight twist allow them to rest on the bars, when the right leg will be on the left hand bar, and the left leg on the right hand bar. (See *fig.* 12.) Do not always turn your body the same way, or let the same leg be always uppermost in crossing them.

This exercise should be repeated five or six times successively.

22.—A COMPOSITION.

Place the hands on the bars, jump up, turn the body half round and sit on either bar; but on so doing let go the hands, allow the feet to hitch under the bar and the body to fall backwards.

With a sudden impetus bring the body up, place the hands on the front bar, and with a slight spring with

the arms carry the legs backwards over the other bar, let go your hold, and alight on the ground.

This is a very clever exercise, and must be well practised.

23.—THE SAUSAGE.

Kneel on the bars with the hands greatly in advance, let the toes point outwards and sink between the bars, when your body will be suspended by the hands and toes. You must now try to occupy as great a length of the bars as possible by working the hands forward and the toes backward. (See *fig.* 13.)

Now endeavour to rise, which will not be accomplished properly at first, but after a little perseverance easily overcome. The whole secret of rising rests with the muscles, which will be put to the test.

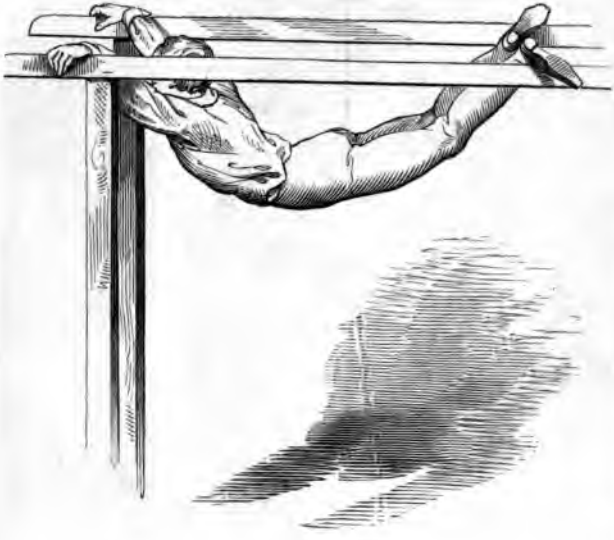
This exercise should be persevered in, and when accomplished, a weight may be placed in the hollow of the back, and gradually increased.

The steadier this feat be done the sooner will the difficulty be overcome.

24.—THE BARBER'S CURL.

Stand between the bars and sink down until the head be below the bars. Grasp the bars with the hands,

Fig. 13.



THE SAUSAGE.

Fig. 14.

THE BARBER'S CURL.

Fig. 15.

THE BARBER'S CURL.

ınd straighten the knees into a sitting posture, thereby orming the letter L.

Now bring the legs gradually over between the arms *fig.* 14), till they perform a circle, or until they come early down to the ground (*fig.* 15), and after staying ı that position for a short time, bring them back gain quite as slowly as you brought them over.

The knees must be kept straight during the performnce of this exercise, likewise the feet kept off the round.

Difficult to beginners, and makes the arms ache, but t is nevertheless easily performed after a little practice.

Do not give it up in despair if unable to do it the irst, or even the second time trying, for this is a 'ery pleasing exercise, and tends greatly to strengthen he muscles of the arms, and likewise causes the grasp o be much firmer.

25.—THE GRASSHOPPER.

This exercise differs with No. 5 in this respect, that very time you jump or spring, you must alight on the ands with the arms bent (as in *fig.* 4), after the ıshion of the grasshopper; rise on your hands and conınue till you reach the end of the bar.

A just balance is absolutely necessary during the perormance of this exercise, or you are liable to fall.

The legs in the forward swing need not be thrown quite so high as in the ordinary swing (see *fig.* 5), but the body is to be also thrown forward, especially when the jump is made.

26.—THE TURNOVER.

Sit astride the bars as across a saddle, stretch your hands in front, fall forward, drop between the bars with a quick motion and grasp the bars behind you, which will cause you to release your hold with your legs (see *fig.* 16), and by bringing them together directly they are free of the bars they will drop between them, when you may alight on the ground.

Try it slowly at first, so as to understand the mode of catching hold of the bars, and do not attempt to let go the bars with your legs until your hands have a firm hold, or when sure of not making a false aim at them.

Gradually increase the quickness of the motion until you can achieve it without any pause, for it is necessary to do it quickly in order to do it properly.

27.—THE BEND.

Stand outside the bars with your face towards them, grasp them firmly with your hands, letting the knuckles

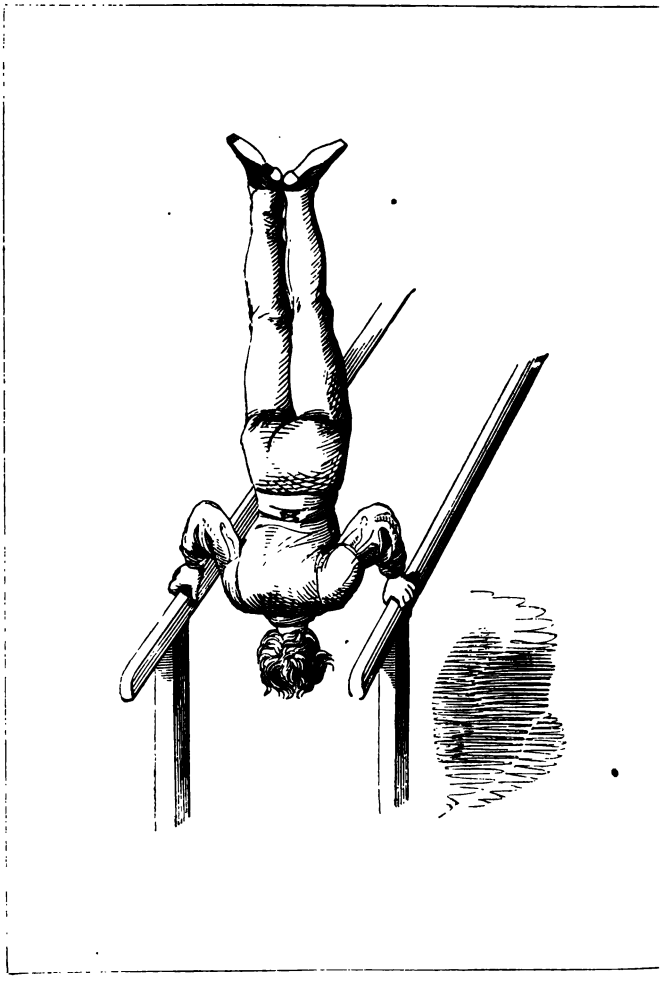
Fig. 16.

THE TURNOVER.

Fig. 17.

THE BEND.

Fig. 18.



THE BALANCE.

be uppermost, and with a spring carry your legs over the other bar (see *fig.* 17), then by using your arms (without moving your hands from the bars), and with a slight motion of the body, carry your whole body over the second bar, and when the middle of the back reaches that bar, provided your head be free of the first, make a little spring with your arms, which will cause you to alight on your feet, but on alighting let the toes be pointed to the ground.

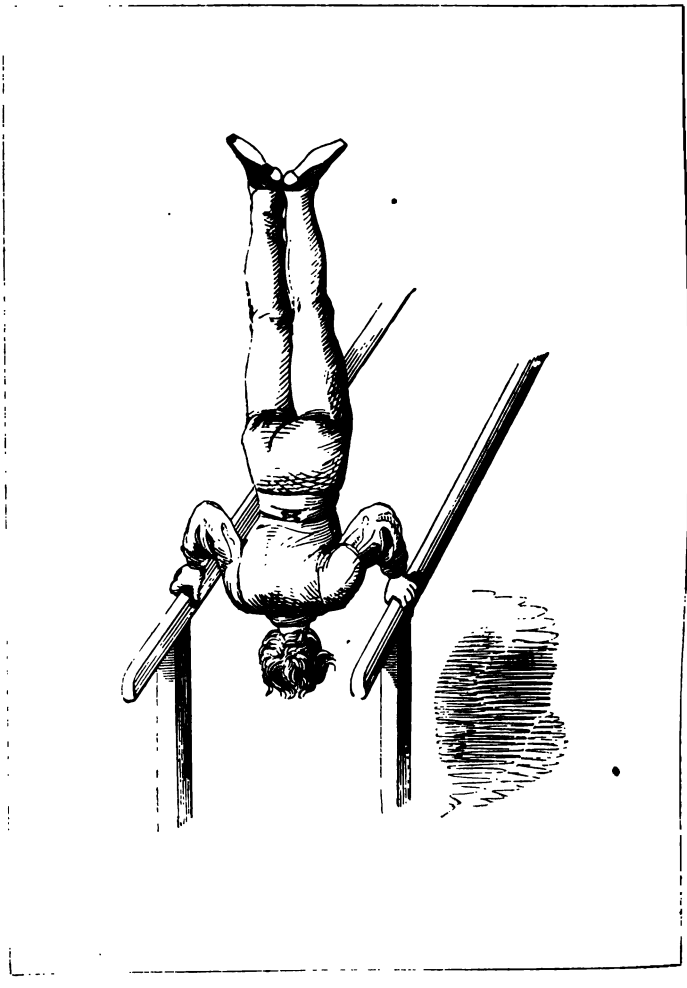
This exercise causes the spine to bend freely, but many young gymnasts abandon it owing to the back being bent so much as to give to some reason to think it hurts them, yet after having done it three or four times he will be able to do it with ease.

The head nor the body must not be bent or turned on one side, but allowed to pass between the bars as freely as possible.

28.—THE BALANCE.

Kneel on the bars as in No. 22, but with the hands not so far advanced; lean forward so as to rest one shoulder on a bar, and gradually raise your legs into the air until they are perfectly straight with the body (see *fig.* 18). After having rested thus for a short time, grasp the bars very firmly, and with the motion of your arms carry your body across the width of the bars so as to rest the other shoulder on the other bar.

Fig. 18.



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28.—THE BALANCE.

Kneel on the bars as in No. 22, but with the hands not so far advanced; lean forward so as to rest one shoulder on a bar, and gradually raise your legs into the air until they are perfectly straight with the body (see *fig.* 18). After having rested thus for a short time, grasp the bars very firmly, and with the motion of your arms carry your body across the width of the bars so as to rest the other sho

This exercise should be done as often as convenient, without allowing the legs to be bent. The wrists will here be tried very much, but will afterwards be found to have gained strength in doing it.

Should the gymnast be so unfortunate as to overbalance himself, he will do well to practise the next exercise.

29.—TO ROLL ALONG THE BARS.

Kneel on the ends of the bars and proceed as above, but without allowing the shoulders to rest, and on bringing the legs up, allow them and your body to turn over, when by spreading the legs, you will alight on the bars.

Do not mind the blows your legs will receive, for in any athletic exercises you must accustom yourself to be able to bear a few bruises. The hands must not lose their hold in turning over; should that happen, spread the arms out straight, which will prevent your falling to the ground.

It is not absolutely necessary to kneel on the bars each time if the learner has sufficient courage to spring from the bars, but I recommend it as it will tend to give him greater courage to do other exercises.

I might here mention that No. 26, *fig.* 16, might also be done similar to the above by merely opening

Fig. 19.

TO ROLL OVER THE BARS.

the legs, and the learner would do well to do so, for it gives him a better idea how to save himself from falling, should he at any time be so unfortunate.

30.—TO ROLL OVER THE BARS.

Sit on one bar with both legs on the outside (which might be done by No. 12, *fig.* 7), grasp the bar with both hands, lean back on the other bar so as to rest the back of the neck on it (see *fig.* 19), then bring the legs over the bar on which your neck rests, thereby causing the body to rise with them as in *fig.* 19, and by letting go your hands when the whole body is nearly over the second bar, you will alight safely on your feet.

This exercise should at first be practised with some one standing on the outside the second bar to assist you to alight, until you have sufficient courage to do it by yourself. It must be done tolerably quick, otherwise your legs will not be forward enough to fall when you let go your hands, and the consequences may be somewhat disagreeable.

It is a very neat exercise if performed with agility and without fear.

The fingers must be uppermost, as shown in *fig.* 19, and the hands must be firmly hitched over the bars.

31. THE FORWARD SOMERSAULT.

This feat is generally performed at the end of No. 2, or any other exercise which brings you to the end of the bars. It gives a very brilliant finish to any of those exercises, and is not so difficult as may at first appear.

When you reach the ends of the bars with your hands firmly grasping the ends, as shown in *fig.* 20, lean a little forward and bring the body into an upright position (see *fig.* 18), but with the legs bent over the head, and in so doing bend the arms, which will cause the shoulders to come between the bars, bring the legs over, and when you find yourself nearly overbalanced give a slight spring with the wrists, and let go your hold of the bars, when you will alight on your feet, but keep the toes pointed towards the ground.

To beginners a slight swing will enable him to carry over his legs a little better, but in so doing the swing must not be too strong, or his head is very likely to go much farther than is required, and may cause him to measure his length on the ground.

This exercise might be done, after the above has been practised, with safety, in the middle of the bars, something similar to No. 29, only the feet pass between the bars; and the first time this is done it must be with

Fig. 20.

THE FORWARD SOMERSAULT.

a determination to succeed, or a blow might be the consequence.

Do not mind if, in endeavouring to keep yourself on your feet after reaching the ground, you fall forward or backward (the latter happens if you let go your hold too soon), for after you have accomplished it at least five or six times, you will be more eager to go on to the next, although it may be somewhat more difficult.

32.—THE BACKWARD SOMERSAULT.

This exercise is also performed at the end of the exercises mentioned in the last, but it is first necessary to achieve No. 20, in order to reverse the position of the body, viz. the face towards the length of the bars; then lean the head back, and bring the legs over, as in the last. But, in letting go with your hands, endeavour to carry yourself as far from the bars as you can, which might be done, after practising it a few times, by bringing the legs over a little quicker, and likewise letting go your hands a little sooner than in the last, and you will be carried out of the reach of the bars if you should at any time miss your footing on alighting.

Keep your legs together, and the toes pointing to the ground in this and the last feat.

33.—THE BACK THROW.

This exercise only differs from the last in this that the legs are here carried outside the bars.

Suspend yourself between the bars, swing, and by turning your body in bringing your legs over, throw yourself over one of the bars (say the right hand one, as in *fig.* 21), and by letting go your hold of the bar opposite to the one over which you go you will alight on the ground.

It is particularly requisite for you to swing very strong and high, which will carry you to some distance from the bars; and in turning your body it must be done quickly, aided with a spring with the hand you intend to let go, otherwise you are likely to fall across the bar, thereby making your stomach suffer. But that can be avoided by attending to the above, or at first by having some one to assist you, which I should strongly recommend in all cases where the young gymnast is fearful of the consequences of a slip or fall; besides a little help at any time would give him courage to do the most daring feat ever yet performed.

34.—THE FORWARD THROW.

This exercise is performed in the same manner as No. 31, but instead of letting the legs come over straight,

Fig. 21.

THE BACK THROW.

Fig. 22.

THE ARM SWING.

they are carried over the bar by twisting the body and arms, which must be done smartly, or your back will come in contact with the bar.

Follow the explanations given in the last exercise.

35.—THE ARM SWING.

This exercise is similar to No. 4, but with this difference, that the swing is performed by resting the forearms on the bars, and the hands grasping them firmly with the fingers on the outside. (See *fig.* 22.)

36.—TO STAND ON THE HANDS.

Proceed as described in No. 28, *fig.* 18, and after having fairly balanced yourself as there described, bring your body equi-distant between the bars, and gradually raise it by straightening the arms.

Stay in that position for a short time, then lower yourself again, and finish with No. 33.

After having practised the above for some time, it would be well for the gymnast to mount between the bars, swing very high, especially in the backward swing, and on the legs going over the head lower the body by bending the arms: the greatest balance is necessary in

doing this, as one is liable to be too anxious, and overbalance himself when least expected.

In this exercise the body might be a little bent, as it will make it much easier for the learner to balance himself.

37.—TO WALK ON THE HANDS.

Proceed as last described, and move the hands alternately along the bars. This should be frequently practised, as only constant perseverance will enable the difficulty to be overcome.

38.—THE SPANISH FLY.

This feat is a very brilliant finish when the gymnast is at the end of the bars: it is not so difficult as at first appears.

When at the ends of the bars place the hands over the ends, swing to and fro twice, making the back swing last, which must be made much higher than the bars, then open the legs, carry them over both bars, and by letting go your hold alight on the ground. (See *fig.* 23.)

In flying over the ends of the bars, let the body lean well forward, assisted with a slight spring with the hands, which will give you greater courage to let go, likewise a

Fig. 23.

THE SPANISH FLY.

better and easier method of bringing your legs together again without knocking them.

The greater the impetus used in swinging, the greater will be the success of achieving the feat.

39.—THE DANCE.

This is a very lively exercise, but it requires great nerve to do it, for the greatest difficulty consists in the after part of the feat, although it is not unlike the last.

Mount between the bars with your face looking towards them, swing pretty smartly, and when your body is fairly balanced, throw the right leg over the right hand bar by letting go that hand, bring your leg between the bars, and grasp the bar again without allowing either foot to touch the ground. Do so with the left hand and leg, and continue as often as convenient, or at least till you reach the ends of the bars, when finish the exercise with No. 38.

40.—THE BRIDGE.

Sit on one of the bars with your legs between them, rest your hands on the same bar you sit on, with the fingers on the inside. Carry your body forward so as to support it by the knees on the other bar, straighten your arms, lean the head back, and by lifting one leg at

a time, rest the feet on the bar, and bring the body as straight as possible.

In order to dismount from the bars, or rather to destroy the bridge, spring with your feet sufficiently strong to carry them over your head, keeping the arms a little bent, and alight on the ground.

In performing this finish, assist yourself as much as possible with the hands; after a little practice it will come quite easy, and you may then add a weight to the body, as described in No. 10, *fig.* 6, thereby trying the strength of the bridge.

41.—TO STAND ON THE BARS.

Place your hands on either bar, spring with your toes, and throw the right leg over. Bring the other leg up and hitch the toe under the bar (see *fig.* 24), lean the body forward, with the arms extended in front to balance yourself, then bring the other (right) foot on the bar as close as possible to the body, and by means of the toe under the bar, with which you are to steady yourself, raise your body up so as to stand on the right leg. Do not unhitch the toe until you are firmly standing on the bent leg.

Now gradually lower yourself again, taking care how you slide the toe along under the bar, and likewise to maintain a good balance.

Fig. 24.

TO STAND ON THE BARS.

42.—THE HIGH LEAP.

Place the bars as low as possible, and with the right hand on the nearer bar, and the left on the other, make a spring and carry yourself over both bars without touching them, then by letting go the bars alight on the other side.

Do the same with the left hand on the nearer bar, when your feet will pass over the bars on the other side of you.

When able to do this easily, place both hands on the nearer bar, and pass one hand to the other bar after having made the spring.

Again, place both hands on the nearer bar, and vault over both bars without resting either hand on the farther bar, yet in so doing you must not retain your hold of the bar, but let it go on passing over the second one.

Repeat the two first exercises without letting go either bar, and achieve it as often as convenient without stopping.

Gradually raise one or both bars higher; the higher the bars are the greater the spring required.

The wrists and the muscles of the arms must not remain idle during this exercise, neither must the toes lack that which is required of them.

43.—KISSING THE BARS.

First put the body in the posture described in No. 16, then endeavour to bring the head down close to each bar alternately, so as to kiss them.

It should be done behind the hands as well as in front of them, but it will be a little more difficult.

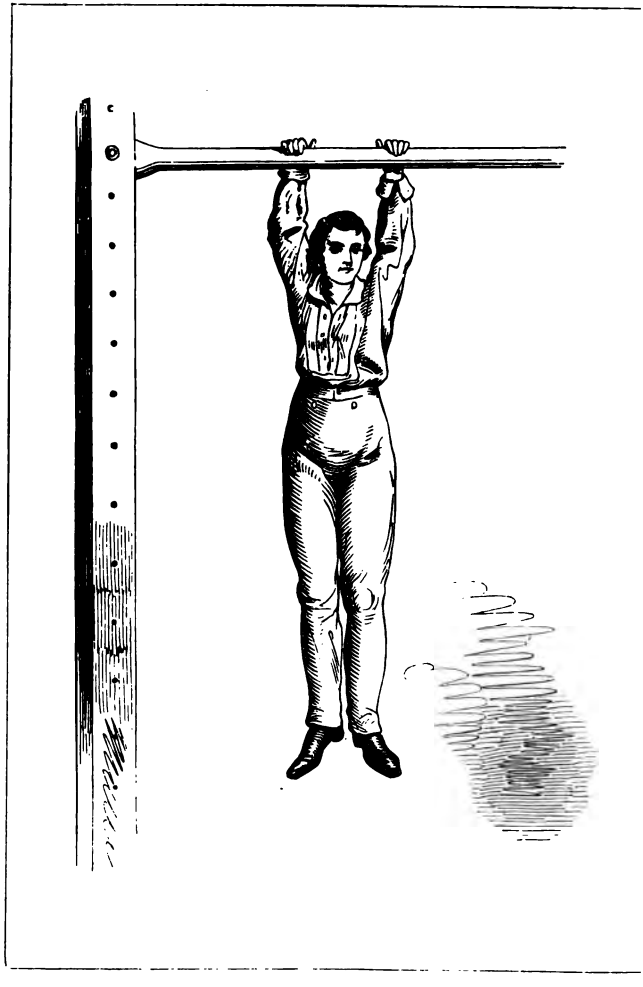
This is a simple exercise after a little practice; to a beginner it causes a slight pain in the back and neck, but it is only momentary.

44.—THE SLIDE.

Place the bars one about twenty inches higher than the other. (See *plate.*) Stand outside the higher bar, and proceed as described in No. 27, but in carrying the body over the second bar it must be done much quicker, and after a little practice, the body, with the first impetus only, assisted with a spring with the arms must, if possible, not be allowed to touch the second or lower bar, but carried clear over it, when you must alight safely on the feet.

Six inches difference in the height of the bars is the least I should recommend, consequently the greater the distance the easier will be the exercise to achieve; but I should not wish the bars too far apart as regards their height.

Fig. 25.



TO HANG ON THE BAR.

THE HORIZONTAL BAR.

45.—TO HANG ON THE BAR.

JUMP up and lay hold of the bar with both hands, let the thumbs be on the same side of the bar as the fingers, and likewise the knuckles as far upwards as possible. (See *fig.* 25.)

Grasp the bar firmly without any fear of not being able to retain your hold for a long time, and alternately take away the right and left hands.

Suspend yourself as long as convenient, but do not overtire yourself, and in dropping from the bar be careful to alight on the toes.

46.—WALKING.

Grasp the bar as in last, and move the hands alternately along the bar, beginning with short and even steps, increase their length until able to take them with ease, and when capable of so doing, place one hand on either side of the bar, and proceed as above, but the

hands must now advance one before the other, and in returning walk backwards.

Keep the legs straight and the toes pointing to the ground, and do not move them about in performing this exercise.

47.—JUMPING.

This exercise is performed in the same manner as the last, but the hands must move both at the same time instead of alternately.

The legs may be bent a little, to assist the learner in making the spring.

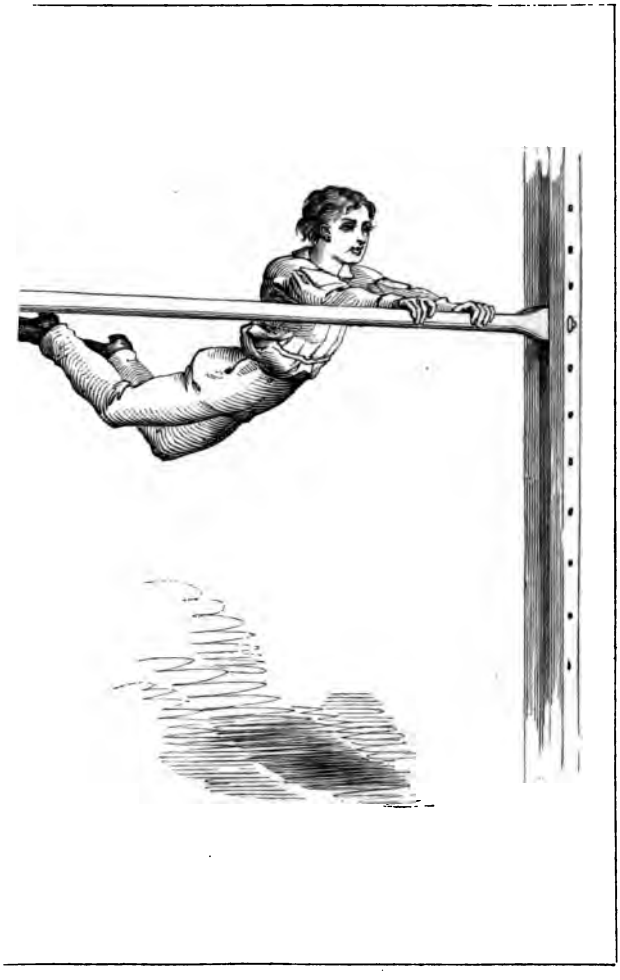
48.—SWINGING.

Hang by the hands about the middle of the bar, move the legs and body to and fro, as if on a common swing, and after a little practice you will find your body rise level with the bar. (See *fig.* 26.)

Do not be afraid of swinging too high, as many feats, to be hereafter mentioned, depend greatly on the neatness of the swing.

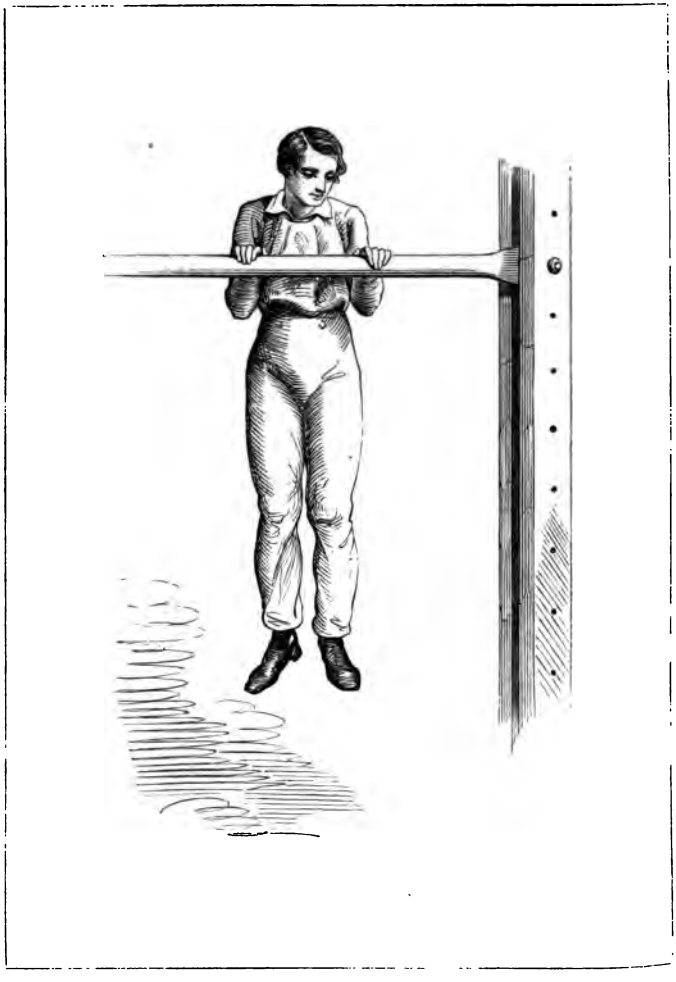
Swing to and fro at least a dozen times, not more, and in leaving the bar do so in the forward swing, and when your feet are rising to a level with your face, when you must let go your hold, and with a motion of the body alight on the toes.

Fig. 26.



THE SWING.

Fig. 27.



TO RISE AND FALL.

This is a very neat way to leave the bar, and the arther the gymnast can alight on his feet from the bar he greater will be his after success and the more graceul will his performance appear.

Above all avoid jerking the legs in swinging.

49.—TO RISE AND FALL.

This exercise is very similar to No. 15, but this someimes receives the name of breasting the bar; it is ievertheless nothing more than the pulling up of the ody as high as the arms will allow.

Hang on the bar and gradually pull yourself up until our breast is as high as the bar, then steadily lower ourself again. (See *fig.* 27.)

Repeat this five or six times at least, and if not able o succeed in doing it the first time of trying do not espair, for on this exercise likewise depends the being ble to accomplish many others, as it tends greatly to trengthen the muscles of the arms and the wrists. (See No. 107.)

50.—THE LETTER L.

This exercise only differs from the last in one respect, hat instead of the legs being allowed to hang straight, hey are brought to a right angle with the body, thereby orming the letter L, and in this position raise the body s in the last exercise. (See No. 15.)

This will seem more difficult to the learner than No. 15, partly owing to the difference in the position of the body; but practice will soon overcome that difficulty.

51.—THE PANCAKE.

Proceed as described in No. 48, and when the body has swung nearly as high as the bar, let go your hands, and after bringing them smartly together (see *fig.* 28), renew your hold on the bar, and continue to swing. Persevere in doing it until able to do it with ease and perfection, the former only to be obtained by constant practice, whilst the latter consists in the smartness with which the hands are brought together.

The farther the gymnast springs from the bar the greater the effect.

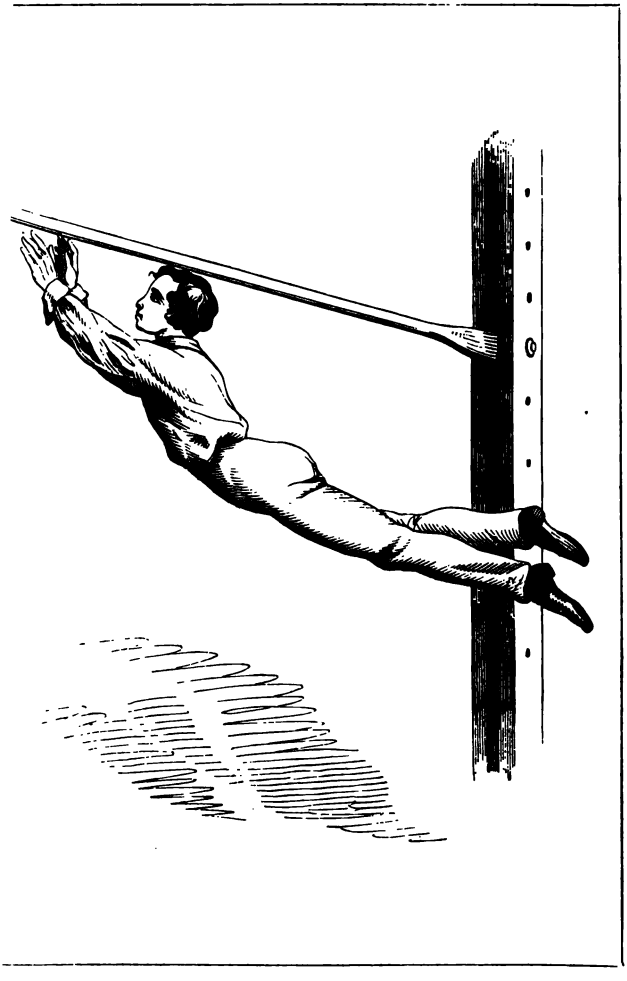
This exercise should be repeated three times before allowing the feet to touch the ground, it is a difficult exercise to beginners; but very soon overcome.

The bar should be about two feet above the head of the gymnast, when standing on the ground.

52.—TO TURN A PANCAKE.

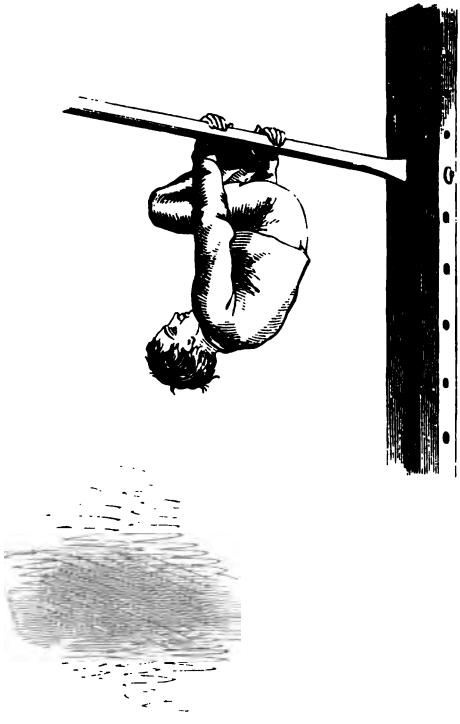
Proceed as described in No. 48, and every time the body is in the forward swing (when the back will be

Fig. 28.



THE PANCAKE.

Fig. 29.



TO TOUCH THE BAR WITH THE FEET.

Fig. 30.

TO BRING THE BODY THROUGH.

towards the ground) give a smart turn, letting go the bar and grasping it again quickly before the body has time to descend.

After a little practice the body should be turned every time, thereby preventing it from descending in the backward swing, consequently the gymnast has the opportunity of seeing which way he goes.

The gymnast will find that he will improve in this exercise every time he practises it.

53.—TO TOUCH THE BAR WITH THE FEET.

Hang on the bar as before described, and with a gradual motion bring the legs up towards the bar, bend the knees, pass them between the arms under the bar together with the toes, which must be pressed against the bar. (See *fig.* 29.)

A slight swing might be used if not able to bring the legs up without; but it is improper to do so.

54.—TO BRING THE BODY THROUGH.

Proceed as described in the last exercise, and allow the legs to pass through together with the body, which must fall as low as the arms will allow; when the body, arms, and legs ought to be nearly in a line with each other. (See *fig.* 30.)

After remaining in that position for a short time return through the arms again without allowing the hands to loose their hold, or the feet to touch the ground.

It will be found very difficult for beginners to return; until able to do so release the hands and fall to the ground, but after a little practice, especially with a little assistance at first, it will become very much easier than it would at first appear.

55.—THE EVERLASTING TWIST.

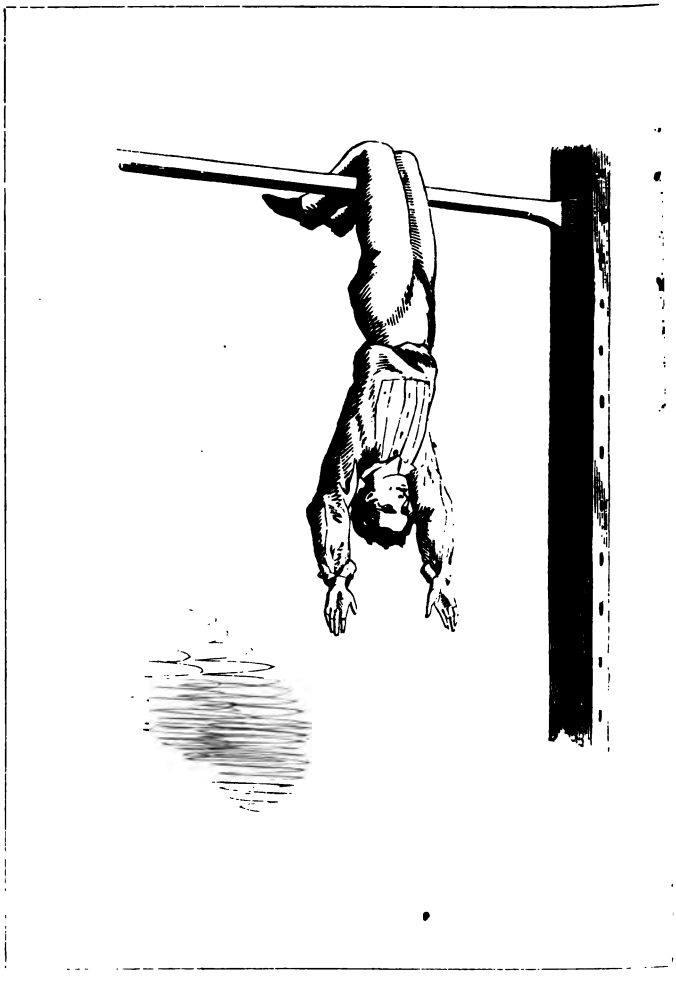
This is an excellent exercise, and one I strongly recommend, as in performing it the gymnast must, if he have not yet done so, suspend himself by one hand, thereby testing the strength of each wrist.

Proceed as last described, but in lieu of bringing the body again through the arms, let go one hand, when the body will swerve completely round, grasp the bar again and repeat the exercise as often as convenient. If it be done six times without stopping, and always letting go the same hand, it will appear as if the arm was being twisted completely round.

I have always found the above give the greatest satisfaction, and I should therefore recommend its constant practice and attention.

Do not always use the same hand.

Fig. 31.



TO HANG BY THE LEGS.

56.—TO HANG BY THE LEGS.

Bring the legs through as described in No. 54, and throw the legs over the bar instead of allowing them to fall towards the ground. Rest them as shown in *fig.* 31, bending them over the bar as far and as firm as possible, let go the hands and allow them to hang loosely.

After remaining in that position as long as convenient, bring the arms up, and by drawing the body up a little, grasp the bar again and allow your body, after having unhitched your legs, to fall as in No. 54, and drop to the ground, taking care to alight on the toes.

Another method will be described in a future exercise, as it will be necessary to achieve one or two exercises to bring his body above the bar in order to sit on it.

57.—TO HANG BY THE TOES.

Proceed as in No. 52, and instead of placing the foot under the bar hitch it over it, keeping the toes pointed towards the ground as much as possible.

Let go your hands and gradually allow your body to hang straight down by alternately catching hold of your

clothes until you are more expert, which will be the case after trying it a few times.

But the most difficult part of this exercise is to be able to replace your hands on the bars. To do so, pull yourself up by catching hold of your clothes, using your hands alternately in so doing.

If the distance be not too great unhitch the toes and drop to the ground on the hands, letting the feet come down lightly.

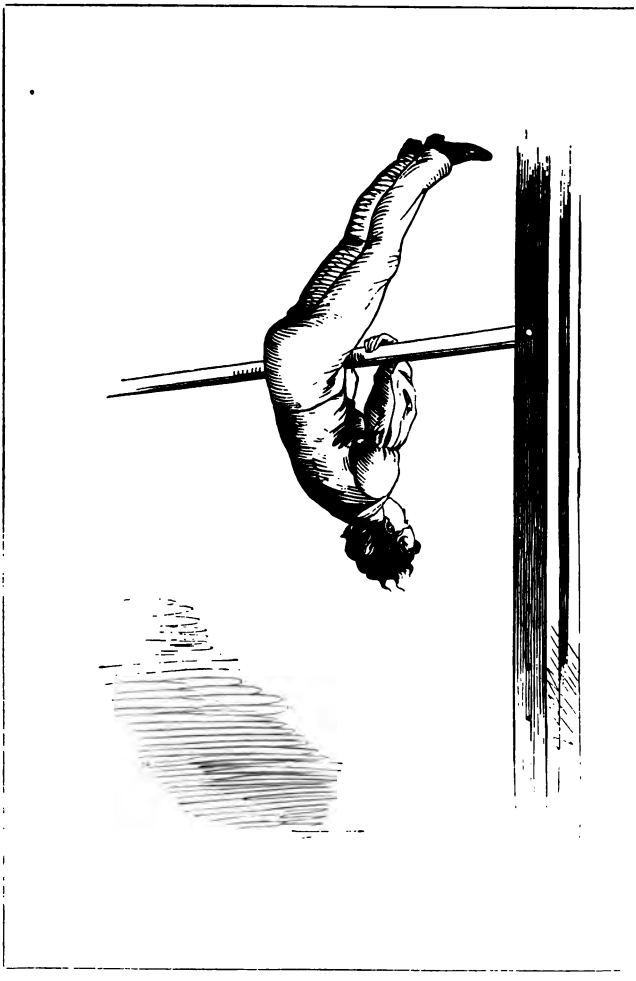
58.—TO RISE ON THE BAR.

Breast the bar as described in No. 49, then endeavour with a motion to straighten your arms. This must be done one at a time, and in fact after leaning your body against either arm, the other must then be turned so as to bring the elbow upwards; afterwards bring the second into the same position, then raise the body by bringing the arms straight, when the hips will be about level with the bar.

This is a difficult exercise and requires great strength, which any one who thought it nothing at all would find if he were to try it.

Another method of bringing the body above the bar is described in the next exercise.

Fig. 32.



CIRCLING THE BAR.

59.—CIRCLING THE BAR.

This, to a beginner, is a difficult and annoying exercise. Difficult because he is very likely to be a long time before he be able to do it to perfection; annoying because his shins are sure to suffer if he does not go over the bar as he intended. Yet when once accomplished no exercise will be found more easy.

Hang on the bar and proceed with No. 54, but carry the legs above the bar instead of under, and by pulling the body up with the arms, and a slight motion of the wrist, carry the legs completely over the bar, and in going over they will act as a sort of balance to your body, and with the assistance of your arms the body will be brought into the required position.

As a means of enabling a young gymnast to circle the bar sooner than by the method just described, only let him fix the bar about as high as his chin, when, after having placed his hands on the bar, and with a step forward, he might give his legs that impetus upwards which will carry him over the bar as quickly as possible, but in so doing the legs must be straightened (see *fig.* 32), and carried over the bar by the simultaneous motion of the arms, especially the wrists. This will, in a very short time, enable him to do it as first described, when the bar should be raised high enough as to cause the gymnast to jump in order to reach it.

60.—TO SIT ON THE BAR.

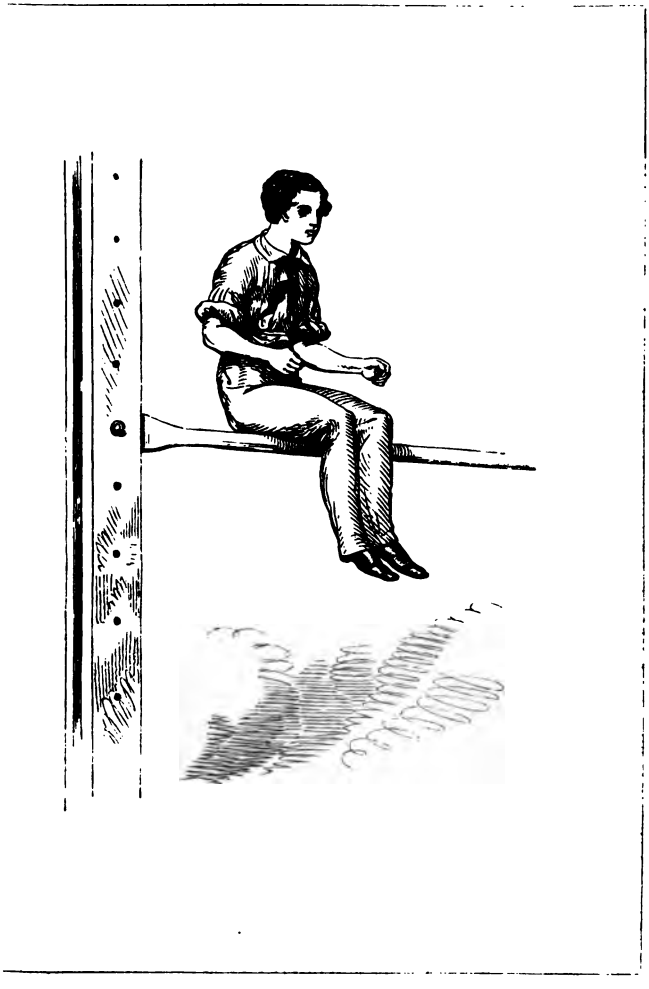
Proceed as last described, and when in an upright position bring one leg over the bar at a time, lifting either hand alternately to allow of your assuming the sitting posture, and when fairly balanced, without fear of falling backward, bring up the fore-arms as shown in *fig.* 33.

Another Method.

Proceed as described in No. 56; and in casting your legs over the bar let them be a little bent only, bend the body gradually; let the head be turned up as much as possible, *i. e.*, with the face towards the ground, when the farther you look along the ground the better. (See *fig.* 34.) Now by the aid of your arms pull your body up, when, by bending the legs over the bar as far as you can, you will then be required to use your own judgment when is the best time to assume the sitting posture. Your body must be considerably over the bar, and your arms must do the remainder of the work, viz., by straightening them the seat will be brought over the bar, when assume the sitting posture.

Do not pull yourself too far over the bar, otherwise, in assuming the sitting posture, a beginner is very likely

Fig. 33.



TO SIT ON THE BAR.

Fig. 34.

TO SIT ON THE BAR.— SECOND METHOD.

to fall forwards, which would not be very pleasant for his arms.

This method of sitting on the bar is sure to give greater satisfaction than by circling the bar; it requires constant practice in order to achieve it adroitly.

Another Method.

Stand under the bar and grasp it with the hands both on the same side, spring up and throw the right leg over the bar (if the hands be on the right side), then by swinging the other leg, and with a strong impetus with the arms, bring the body above the bar, when the other leg can be brought over;

Or,

Bring the right or left leg between the arms and bend it firmly over the bar, then, with the impetus as in the last, bring the body above the bar. This will be found more difficult than the one last mentioned, but both should be practised.

When sitting on the bar with one hand on either side fall backwards, keep the legs firmly round the bar and when the body is steady let go the hands. This is the other method of hanging by the legs before referred to. (See No. 56.)

61.—THE SLIDE.

Proceed as described in the second method of No. 60, and when your body is fairly over the bar, give a little sudden impulse, let go the bar, and slide off it to the ground, as far from the bar as possible.

The farther you fall in front of the bar the better the exercise will be done.

62.—THE BALANCE.

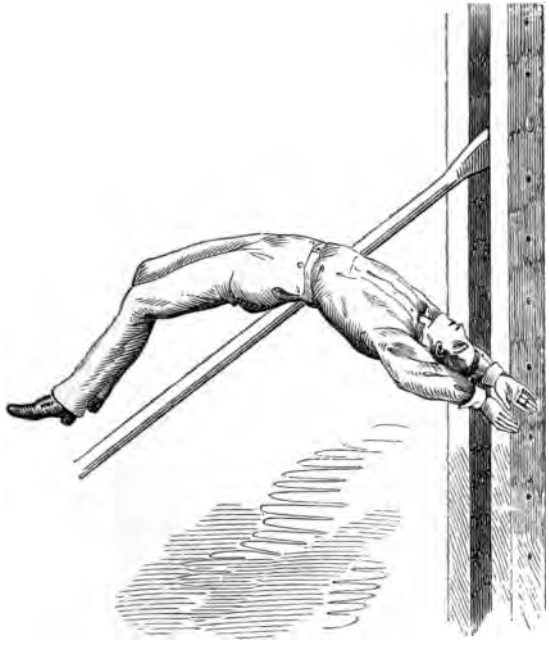
Proceed as described in No. 60, and when the bar reaches the centre of the back allow the head to hang down, and by letting go your hands in order to sustain yourself on the bar without falling over either side, thereby balancing yourself. (See *fig.* 35.)

Stretching the hands over the head will greatly assist you.

63.—THE GRASSHOPPER.

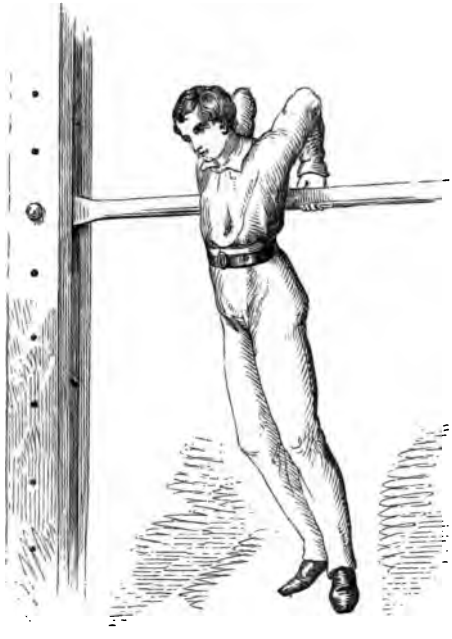
This is a very difficult exercise, much more so than No. 25, although in most respects very similar, the difference consisting in the position of the body with the bar or bars. In this exercise the whole weight of the

Fig. 35.



THE BALANCE.

Fig. 36.



THE GRASSHOPPER.

Fig. 37.

THE VAULT.

body will be upon the wrists, therefore it need be done the first time with care.

Either circle the bar and sit on it, or proceed as in the last exercise, and when the body is falling forward, which must be very gradual, allow the body to sink, still retaining your hold on the bars. (See *fig.* 36.)

When in this position first move the hands alternately along the bars, then with a slight jerk with the legs move them to and fro both at one, giving the action the appearance of a grasshopper.

This is only to be acquired after continual practice. Do not remain in this position too long at first; the dress must not be too tight, and the neckcloth should be loosened. The knuckles must be turned backwards. (See *fig.* 36.)

64.—THE VAULT.

Circle the bar, grasp it firmly with the fingers on the outside, then after moving the legs to and fro (from right to left) two or three times, carry them over the bar (see *fig.* 37), let go your hands and alight on the ground. On alighting point the toes towards the ground.

The bar should not be too high from the ground at first, but it may after a little time be raised very high, for the higher the bar he falls from, the greater the effect in achieving the vault.

65.—THE WHIRLIGIG.

This is a very amusing exercise, not only as regards a gymnastic feat, but it tests the learner's full balancing powers, and likewise nerves him to do others much more daring without having the least fear.

Circle the bar (or either of the other methods) and sit on it, as shown in *fig.* 33. Work your body a little on one side, and throw the right leg over the bar without any fear of falling, or resting the hands on the bar, then throw the left over; repeat the same as often as convenient and as quickly as possible.

Repeat the exercise by first throwing the left leg over the bar then the right.

When perfect in the above, and for sake of variety, throw both legs over at once, repeating it four or five times, and return in the opposite direction.

Difficult at first, but very easy after it is once achieved.

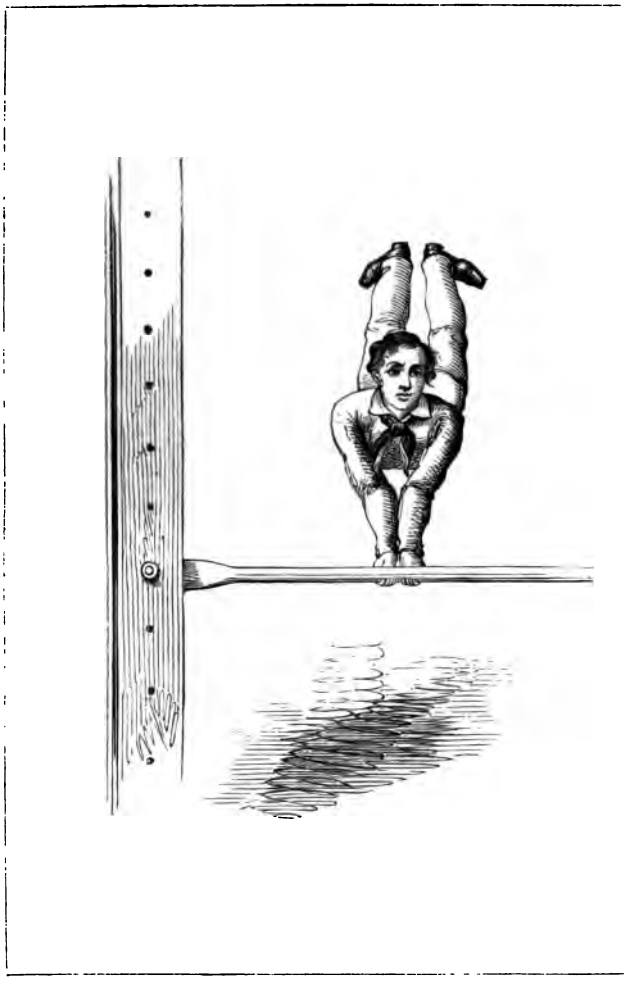
66.—A POSER.

Proceed as described in Nos. 58 or 59. Grasp the bar firmly with the knuckles on the outside, and by keeping the arms perfectly straight, pass both legs between them at once, and either assume the sitting posture, or let go your hold and alight on the ground.

Fig. 38.

A POSER.

Fig. 39.



THE TURNOVER.

The legs, as will be seen in *fig.* 38, are crossed, and the head leaning forward in order to balance the body, while the legs are being passed between the arms.

The firmer the grasp and the straighter the arms, the more likely are you to succeed, for the legs press very much against the arms in working their way over the bar, thereby intimating that they want *a little more room.*

This is a very clever exercise if done neatly by bringing the legs through the arms together, and not one at a time, and if the hands do not shift their place during the feat.

67.—THE TURNOVER.

Mount the bar as in No. 59.

Turn the fingers on the inside of the bar, bring the hands and elbows close together, lean forward so as to rest the body on the elbows, and by a gentle motion carry the legs over the head (see *fig.* 39), finally the whole body, then let go your hands and alight on the ground, taking care to do so on your toes.

The impetus with which the gymnast turns over is sure to cause him to alight on his feet, still, until able to do it properly, he may have a fall or too; if he should it will not be very serious, but similar to that when achieving No. 31.

In turning over the hands must grasp the bar firmly, or from the motion of the body the hands will be liable to slip.

68.—THE FALL.

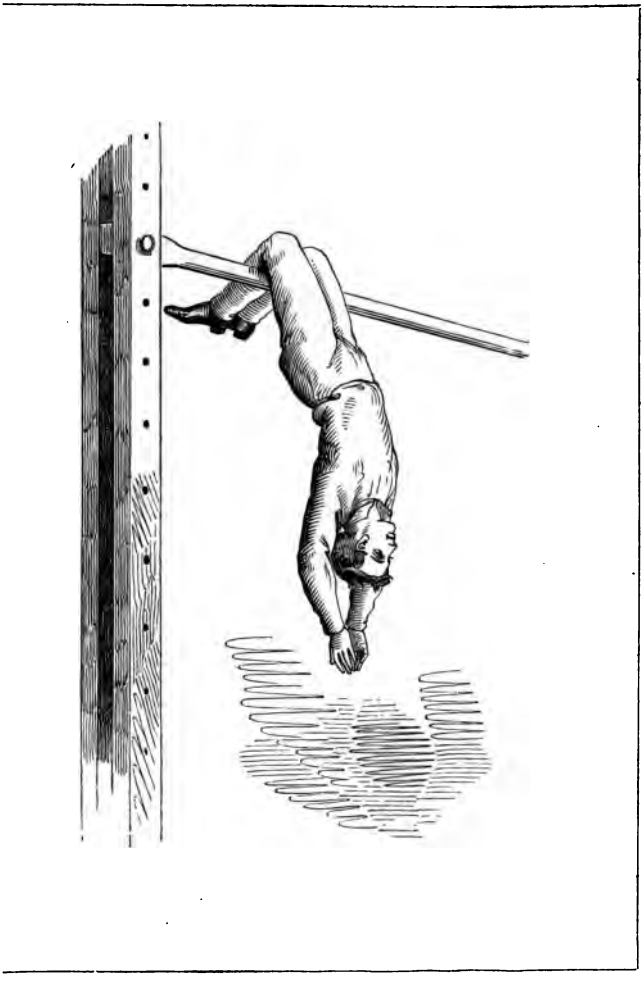
Hang by the legs as described in No. 56 or 60, keep the feet as much as possible towards the ground, move the arms and body to and fro to get the body to swing well, when, on the body rising with the face downwards, unhitch your legs, and you will alight safely on your feet. (See *fig.* 40.)

It will frequently occur, until you are able to do this exercise properly, *i. e.*, until you learn the precise time when the legs ought to be disengaged from the bar, that you will fall on *all fours*, — this is owing to your unhitching your legs too soon, but of that no matter, as you will soon overcome that difficulty.

69.—THE FLING.

Sit on the bar as shown in *fig.* 33, but with the arms rather more extended downwards over the knees; bend the legs under the bars, and with as great an impetus as you can, throw your whole body back, in fact try to throw yourself off the bar, but by holding the bar with

Fig. 40.



THE FALL.

the legs, as in the last, until the head rises nearly as high as the bar, when you can unhitch the legs and alight in safety on your feet.

Do not be afraid of flinging yourself with too great a force, for the greater force used the better.

This exercise is sure to receive great approbation, especially if done fearlessly, and with a determination to succeed.

In doing this and the next exercise the arms are indispensable, and should therefore be used as much as possible.

70.—THE CATCH.

Proceed as in the last; but on unhitching the legs from the bar, give the body a sudden turn and catch hold of the bar without allowing the feet to touch the ground.

This feat is more difficult than the last, but not so difficult to accomplish as it here appears.

To give a brilliant finish to this exercise finish with No. 61 or 54, which will give it a good effect.

71.—THE ROUND.

Proceed as described in the last exercises, and, on the body rising, endeavour to grasp the bar and retain yourself in an upright or sitting posture.

This will be found much more difficult to achieve than either of the three preceding exercises, and great impetus is required in throwing the body back, for the higher the body rises the more likely are you to succeed, and only continual practice will enable the difficulty to be overcome, but do not despair, for the oftener you try it the more visible will the capability of its being done appear, therefore persevere regardless of time and trouble.

72.—THE LEVER.

This exercise requires great strength in the muscles of the arms, and is only to be achieved by practice, and with a determination to succeed.

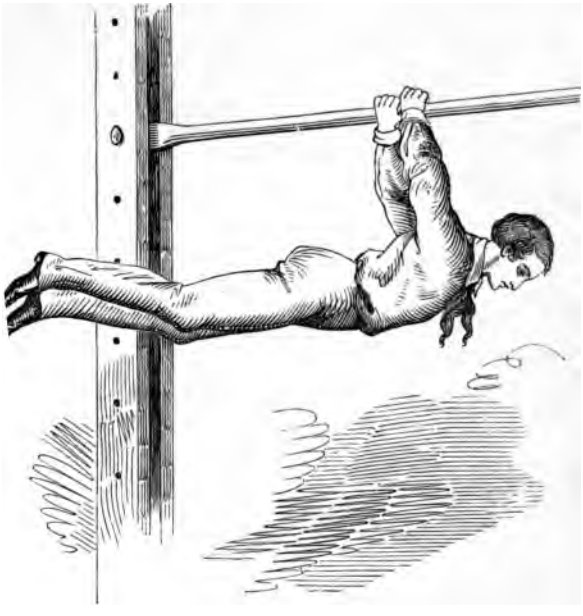
Go through the arms as in No. 54, keep the legs perfectly straight with the body, and gradually lower them until level with the ground as in *fig.* 41.

After remaining in that position a short time, either drop to the ground, or carry the body back again through the arms, the latter should be preferred.

Another Method.

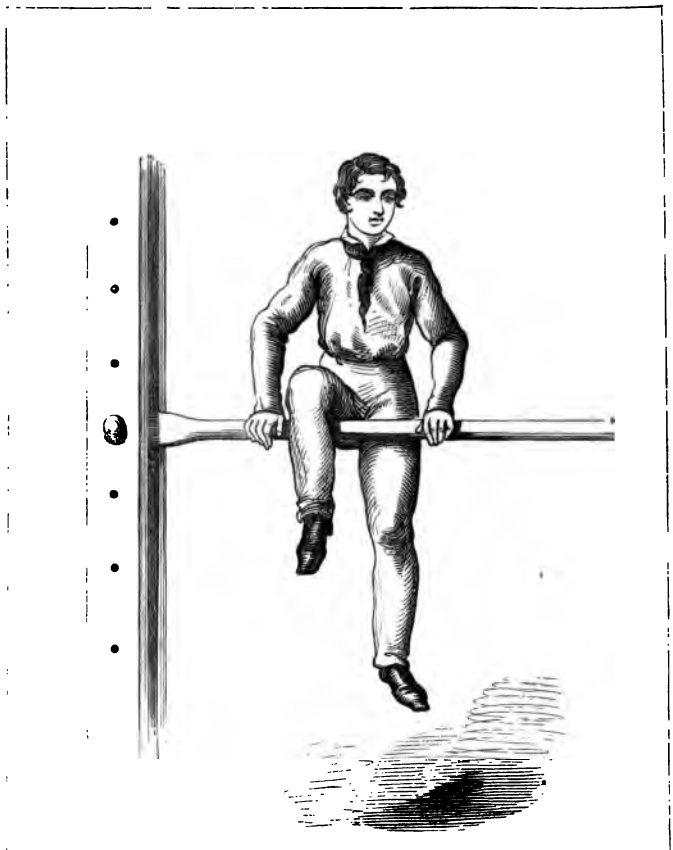
Sit on the bar with the knuckles turned backwards, allow the body to sink a little forward to bring the legs straight with it, after which, keeping the arms straight and grasping the bar firmly, carry the body partly round the bar, and assume the required position.

Fig. 41.



THE LEVER.

Fig. 42.



THE ROASTING-JACK.

This is done by the sole use of the arms and wrists, ›onsequently great strength is required to lift the body ıp.

This method should be preferred to the former one, ›wing to the greater difficulty in achieving it (for there s no great art in doing the very easy feats), but a little ›ractice will soon make you the master of it.

73.—THE ROASTING-JACK.

Circle the bar, and throw either leg over it, grasping he bar with the fingers on the outside. (See *fig.* 42.) Move the other leg to and fro, and with a sudden novement throw your body backwards with such orce as to carry you round the bar into your former ›osition. The arms must not remain mere supporters ›f the body, but assist in performing it.

This exercise should be well practised until capable of loing it several times without stopping. Some I have een do it a dozen times, some twenty times, and others nore, even as many as fifty times.

This feat is reversed by changing the position of the ıands, as in *fig.* 39, and giving the body a forward notion, instead of backward, but the learner will ind it much more difficult to accomplish; it will herefore require longer practice.

74.—THE SPIT.

This is a very clever and amusing exercise, and easily accomplished with very little practice. The wrists are very much called into use.

Circle the bar with the fingers on the outside, move the legs backwards and forwards, and with a gentle movement, assisted by the wrists, go completely round the bar.

This should be practised until able to do it without allowing the body to touch the bar whilst going round it, and likewise until it can be done several times without stopping.

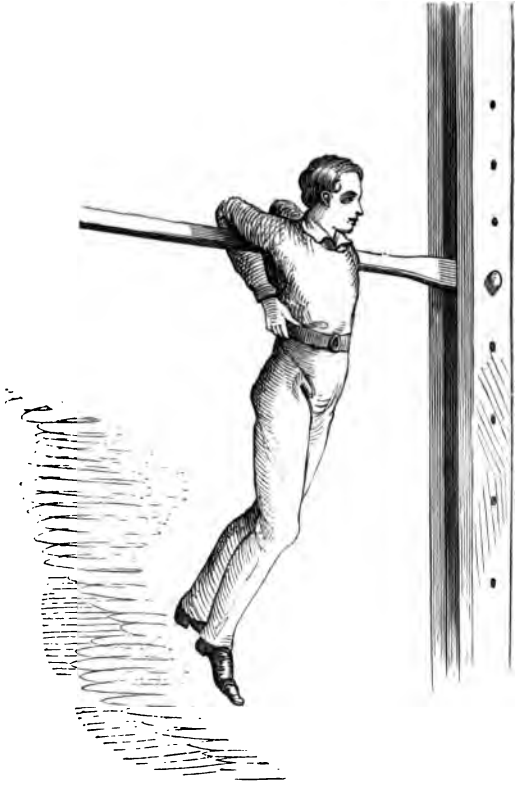
75.—THE GREAT CIRCLE.

Great energy and strength are required to achieve this feat, and the greater force the young gymnast gives to all his actions the greater will be his success.

Circle the bar and grasp it firmly, with the knuckles upwards.

Move the legs backwards and forwards two or three times, leaning the body a little forward every motion of the legs, and in the backward motion fling yourself to your whole arms' length from the bar with all your might, when your body will be swung completely round

Fig. 43.



THE WHEEL.

the bar, which will be about the lower part of the stomach.

On the body's rising pull it up a little, and carry the legs over. Should you not throw yourself from the bar with sufficient strength, you will either not rise high enough to bring the legs near the bar, or they will come against it and not over it, when the shins will suffer for your want of greater energy. In fact, the legs should be made to go as great a distance as possible.

This exercise should be persevered in until able to bring the body to the bar and carry it round again, as in No. 74, without allowing the body to touch the bar.

76.—THE WHEEL.

Now to try the learner's muscles.

Sit on the bar and sink down, as described in No. 63; let the arms slip (one at a time first) over the bar, and the hands can then grasp a belt round the waist (see *fig.* 43), which it will be necessary to wear; move the legs and body to and fro, and in the backward swing, with a stronger impetus, carry the body round the bar, and repeat it every time you wish to go round, which should not be more than three times at first, as the friction and rubbing which the arms will get will, until more used to it, make them very red and tender, so much so that you

would not like to repeat it for some short time, but that must not be noticed too much, as the oftener the exercise be done the less notice will be taken of the results.

This exercise is reversed, similar to No. 73, but the arms remain the same.

In this, as in many other exercises before mentioned, the legs must be made good use of.

The gymnast, when perfect in it, would do well to try how many times he can go round.

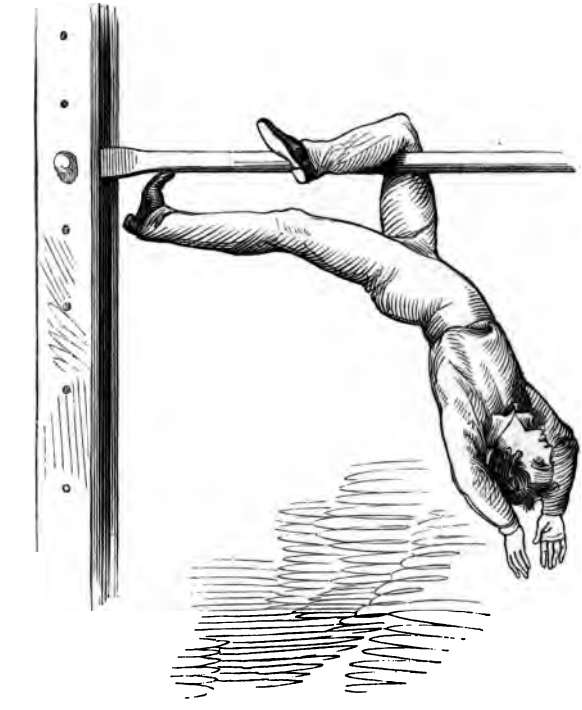
Do not descend from the bar for a short time, until the giddiness be worn off, or else achieve the reverse way two or three times, and if not able to do it by yourself, a little assistance should not be refused.

77.—THE SUSPENDER.

This exercise is meant to test the strength of the grasping of the bar with one leg.

Stand under the bar and grasp it with both hands, one on either side, and with a sudden spring throw the right leg over the bar towards the left; then place the toes of the left foot under the bar, as in *fig.* 44; let go the hands, and allow your body to lower itself as much as possible, remaining in that position as long as convenient.

Fig. 44.



THE SUSPENDER.

The hands may either hang loosely, as in *fig.* 44, or be folded across the chest.

Repeat the exercise by reversing the position of the legs, and finish the feat with No. 61 or 68.

The leg under the bar must be kept perfectly straight.

78.—THE REVOLVER.

Sit on the bar with one hand on either side, and the knuckles uppermost; then throw yourself backwards with sufficient force as to carry you round the bar into your former position again, without letting go your hold or losing your sitting posture.

Do this also with the forward motion, but the position of the hands must be changed.

This is a very clever exercise, and nothing but continual practice will ever overcome it. (See Nos. 70 and 71.)

79.—THE AWKWARD JOB.

Proceed as described in No. 69, but instead of throwing your arms back to assist you, you must, on throwing yourself back, grasp the bar between the legs, and let it go again at the same time that you unhitch your legs, when you will alight on the ground.

In throwing yourself back, do not grasp the bar

too soon, as that will spoil the required effect; neither must you be afraid to let go the bar, for there is not the least danger of falling, provided you throw yourself back with as great an impetus as possible.

This, and Nos. 68, 69, 70, 71, and 77, are very much alike in their mode of being performed.

80.—BOW AND ENDS.

This amusing, and to all appearance grotesque, exercise will tend to strengthen the grasp very much.

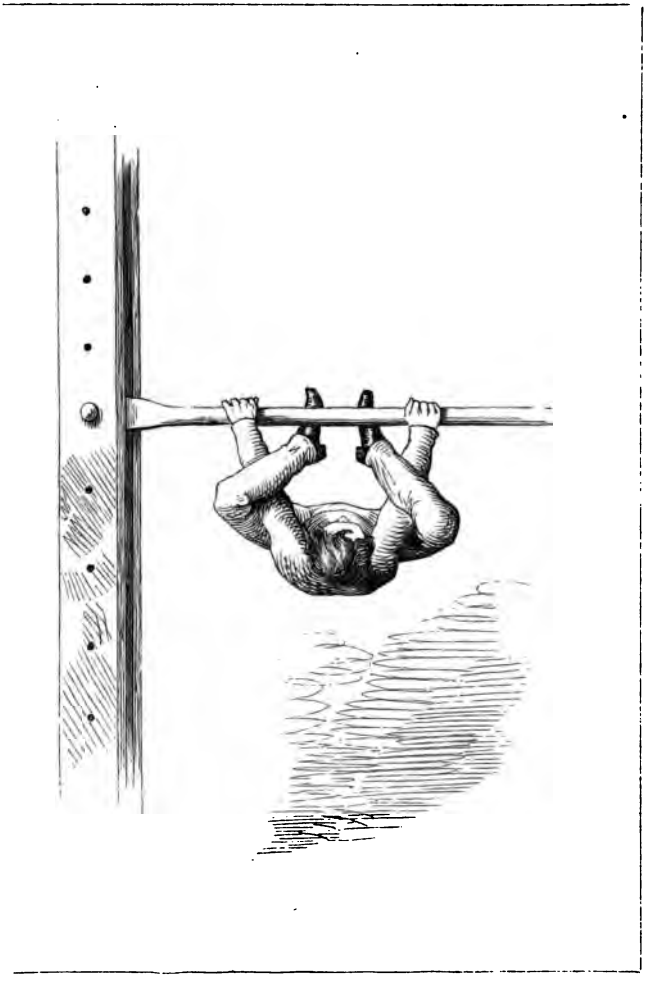
Catch hold of the bar with the hands both on the same side, and the knuckles uppermost; bring up the legs, and pass one on either side of the arms, instead of between them; bend them over the arms as near to the shoulders as possible, and hitch the toes, one at a time, under the bar (see *fig.* 45), when the exercise is complete.

A great strain will be found on the wrists by the legs pressing against the arms; after trying it a few times it will become much easier.

81.—THE ARM-CHAIR.

Circle the bar and rest the fore-arms about three inches below the elbow on the bar, and remain in that position a short time only; but the nearer the

Fig. 45.



BOW AND ENDS.

Fig. 46.

THE CENTRE OF GRAVITY.

bar be to the wrists the more difficult it will be to support yourself.

The legs should be perfectly straight and close together, and the head leaning a little forward.

For the sake of variety do the same with the upper part of the arm, and use only one arm at a time. This is a trying feat to the gymnast, although not to the spectator, but he has only to try it to be convinced of its difficulty, especially if his muscles be not up to the mark.

In this latter exercise you cannot face the bar, the legs will therefore be brought a little towards the bar to act as a balance; the arm must be kept perfectly straight.

82.—THE CENTRE OF GRAVITY.

Sit astride the bar as across a saddle; place the hands in front as in *fig.* 46, keep the legs close together, swing them and the body to and fro, *i.e.*, let the body go to the left when the legs move to the right; do so two or three times, and with a sudden impulse carry the body round the bar and resume your upright position.

In performing this exercise the gymnast must keep himself nearly upright, and his hands always in the same position; but he will find it rather difficult until he has practised it a few times.

83.—THE JOCKEY.

This exercise is not much to look at whilst being done by another; but it is more difficult to achieve than will at first appear.

Sit astride the bar as in the last exercise, bring the elbows against the sides, lean forward so as to lift yourself from the bar, when in that position move the hands alternately along the bar, very slowly at first, and practise until able to run along the bar very quickly.

When perfect in the above, the gymnast can vary his movements similar to some of the steps in dancing, especially the advancing and retiring step in the quadrille.

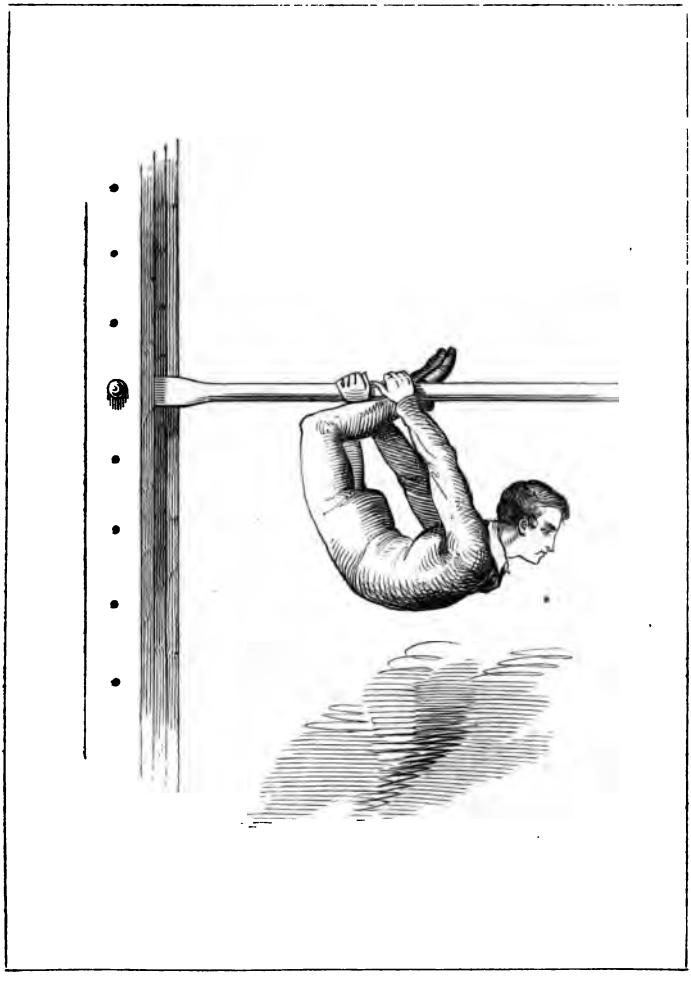
The body must not on any account be allowed to touch the bar during the performance of a certain motion or figure.

The above is a very amusing exercise, and if done neatly would give great satisfaction to spectators.

84.—TO TRUSS A FOWL.

Grasp the bar as in No. 79, and bring up the legs between the arms, hitching the toes against the bar,

Fig. 47.



TO TRUSS A FOWL.

then force the whole body through, so as to bring the face downwards. (See *fig.* 47.)

Do not relax your hold of the bar, nor unhitch your toes, but return the way you came.

85.—TO LIE ON THE BAR.

Sit astride the bar, lean gradually back until your head touches the bar, then place your legs also on it, keeping them perfectly straight.

Perhaps the above will to some appear *impossible*, if so, do it thus:—In leaning back place the feet under the bar to steady yourself. If that be not sufficient, put your hands on the bar behind you, or in leaning back let your arms hang over the head until the hands touch the bar, when steady yourself whilst you place the feet on the bar.

After the body is out straight the arms may be allowed to hang loosely by the side, folded across the chest, or placed in any position the gymnast may think proper.

The arms may likewise be moved about so as to test the feat, the legs may hang loosely on either side of the bar, all of which will add greatly to the exercise.

86.—SIX MISCELLANEOUS EXERCISES.

In order to achieve several of the foregoing exercises for the purpose of amusing a few of your friends, I beg leave to subjoin the undermentioned, doing them in the order they are here placed :—

First exercise,	Nos.	59, 70, 54, and 61.
Second	„	„	59, 75, 55, and 76.
Third	„	„	83, 59, 65, and 69.
Fourth	„	„	57, 59, 62, 56, and 68.
Fifth	„	„	59, 73, 83, 85, and 67.
Sixth	„	„	50, 72 (60, Part 2.), 63, and 64.

Should it occur that a difficulty arises to pass from one exercise to another, the gymnast must use his own judgment as to what he had better do first in order to make that change.

The gymnast, in achieving either of the foregoing exercises, must not allow his feet to touch the ground until he has accomplished the whole it is his intention to do.

THE SUSPENDED BAR.

BEFORE mentioning any feat in particular to be done on this apparatus, I shall advise the learner to endeavour to achieve several of the exercises mentioned in the Horizontal Bar; the principal are,—

No.	No.	No.	No.
45	56	62	74
49	57	63	75
50	58	66	79
53	59	68	80
54	60	69	81
55	61	71	84

By the above list it will appear that there is not much difference between the horizontal bar and the suspended bar: there is not, nor would there be were it not for the swinging motion in the latter, caused by the performance of the exercises, but that will soon be over-

come when the young gymnast has practised and learned to give the right motion of his body to the never-ceasing vibration of the bar.

87.—THE TURN.

Place the left hand on the bar with the fingers backwards, and the thumb in front of the bar, close to the left-hand rope, which must be grasped with the right hand about the height of the shoulder, then carry your body round the left-hand rope, and by lifting your legs over the bar resume your position on it.

Do the same with the right-hand rope, only let the left hand be uppermost. (See *fig.* 48.)

The rope must be grasped as shown above.

88.—TO STAND ON THE BAR.

First sit on the bar, grasp the ropes as high as possible, and with a gradual motion, similar to No. 15, pull yourself up until you can place your feet on the bar, then place the hands a little higher to ease yourself, or proceed with the next exercise.

Fig. 48.

THE TURN.

Fig. 49.

TO STAND AT EASE.

Fig. 50.

THE OVERTHROW.

89.—TO STAND AT EASE.

Turn your back against one of the ropes with your feet on the bar, but the toes turned out (see *fig.* 49), and when perfectly steady fold the arms across the chest.

Do this against either rope, and do not always keep the same foot in front.

The feet may be placed as in *fig.* 49, or the front foot may be slided forward, so as to rest the hollow of it against the bottom of the rope, and the other laid across it, as when sitting in a chair a person stretches out his legs for ease and comfort.

90.—THE OVERTHROW.

Stand on the bar and grasp the ropes firmly, as shown in *fig.* 50, which shows that the knuckles are in front, and the thumbs downwards, the elbows may be a little up, but the hands should be as high as the hips; then, by leaning forward and lifting your feet off the bar, allow yourself to turn quite over, when you may either alight on the bar in the sitting posture, or place your

feet on the bar again; the latter you will be able to do if your hands be high enough before you turn over.

This exercise may be reversed, and the best description or idea how it should be done will be to advise the learner to notice the position of his arms and hands after he has accomplished the above exercise, and reverse the motion of the body on turning over.

91.—TO STAND ON THE HEAD.

Grasp the ropes about a foot above the bar, after having first knelt on it; then, with a motion similar to the last, throw your legs upwards, open them and place them against the ropes to steady yourself, then lower the body and place the head on the bar.

After a little practice the young gymnast will be able to let go his hold of the ropes and fold his arms across his chest or in any other position; but he must be very careful how he does it the first time.

The hands should be placed as shown in *fig.* 50.

92.—THE REST.

This exercise is very similar to the above.

Sit on the bar, grasp the ropes, slide down until the bar touches the back of the neck, and in so doing throw

Fig. 51.

THE REST.

the legs up and rest the feet against the ropes. (See *fig.* 51.)

The body must be bent a little at the hips.

The hands may be folded across the chest, or placed as shown in the above figure.

Care must be taken in this as well as the last, for a slip might cause you to repent of not having paid sufficient attention to the advice given.

93.—THE SWING.

I did not include this as capable of being done in the afore-mentioned list, for this reason: in swinging with the suspended bar the ropes are sure to sway to and fro, and in thus swinging the force required must be given at the right time, otherwise the ropes might check you.

It would give additional beauty to this exercise if the young gymnast were to perform any other exercise during the swaying of the bar, as Nos. 49, 54, or 59, or any other that he might select.

The leg swing must be made whilst hanging by the legs, as in No. 56, when the arms must be well used to accomplish the exercise to give satisfaction.

Do not omit to keep your feet well towards the ground in the leg swing after having once set yourself in motion.

94.—THE CATCH.

This exercise differs greatly with No. 70; for here the exercise is performed with the feet instead of the hands.

Sit on the bar without holding, as described in No. 69, and, in throwing yourself back, open the legs wide and turning the toes outwards, when they will hitch around the rope, as shown in *fig.* 52. After remaining in that position for a short time, pull the body up and grasp the bar, when you can easily unhitch the feet.

95.—THE LEAP.

After achieving No. 93, and when you think yourself high enough from the ground, let go the bar and alight on it, either in the forward or backward swing, but let the toes bear the weight of the body on alighting, and not the heels.

This should be practised with a slight swing at first, as the position of the body is not the same on alighting with the forward as with the backward swing. After a little practice the gymnast may try how far he can leap from the bar. The higher the swing the farther will be the leap.

Fig. 52.

THE CATCH.

Fig. 53.

THE BARBER'S CURL.

THE SUSPENDED ROPES.

96.—SIMPLICITY.

GRASP the bow ends of the ropes, one in each hand, throw the legs up as quickly as possible, something similar to No. 24, only much quicker, and on the feet falling to the ground, let go the ropes and alight on the ground.

Difficult as it may appear to beginners, there is not one more simple when accomplished.

The quicker this exercise is done, the more likely is the gymnast to succeed, and after trying it a few times he will be able to alight on his feet in safety.

97.—THE BARBER'S CURL.

This exercise is described in No. 24; but instead of grasping the bar the loops must be grasped (see *fig.* 53), and in doing it the ropes must be perfectly steady, and not allowed to sway to and fro.

Fig. 54.

THE LIFT.

This should be repeated both backwards and forwards as often as possible; it will make you very giddy, but will soon wear off after reversing the motion of the body.

The ropes must not be let go until the exercise be finished, but allowed to twist up as many times as the gymnast goes round.

100.—THE LIFT.

Grasp the ropes and throw the legs up as before, but in so doing, straighten them and keep them upright. Keep your body down, and do not let it be bent, nor the feet touch the ropes. (See *fig.* 54.)

When in this position pull yourself up as far as possible, and let your body fall suddenly, still keeping the legs and body in the same position.

This is a good exercise, and tends to make the gymnast keep a firm hold of the ropes.

101.—TO TRUSS A FOWL.

This exercise has been previously described in No. 83, and only differs from it in one respect, viz., that the toes, in lieu of being placed against the bar, are hitched in the loops with the hands.

The gymnast, whilst accomplishing this feat, should get a little boy to suspend himself by his arms around his waist, which will test the strength of his grasp, and with what surety he can hold anything with his toes.

Increase the weight until able to bear the weight of one your own size.

102.—THE REVOLVER.

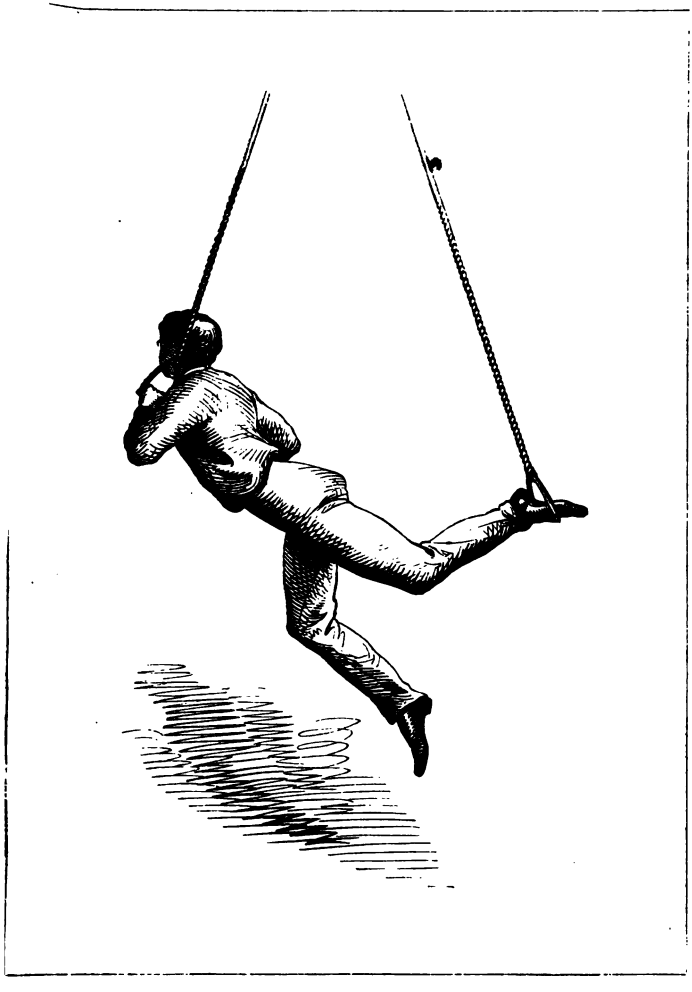
Grasp the ropes, one in each hand, throw the legs up and hitch one (right) foot in one of the loops (the right), and in so doing, let go your hold of the loop in which you hitch your foot, and grasp the other rope with that hand (the right), carrying the other (left) leg over, and allow it to hang as in *fig.* 55.

Take care on carrying the leg over as just described, that the (right) foot does not slip out of the loop.

Now with both hands grasping the one rope, and one foot in the other, pull yourself up by moving the hands alternately, and when up a sufficient height, place the other foot (left) in the spare loop, and grasp a rope with each hand.

Cross the feet one over the other, to keep them together (*fig.* 56), and pass the arms to the front, grasping the ropes as above shown, about the height of the hips, lean forward, throwing your feet up slightly behind, and you will turn completely over.

Fig. 55.

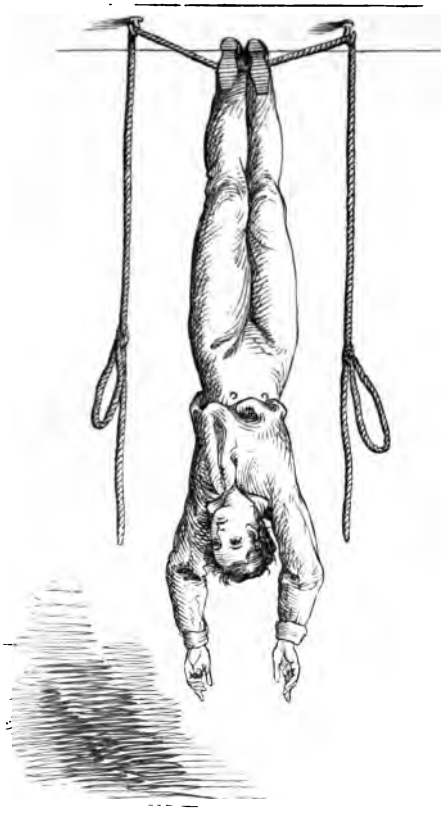


THE REVOLVER.

Fig. 56.

THE REVOLVER.

Fig. 57.



TO HANG BY THE TOES.

Hold the ropes firmly and keep your feet crossed, and there will be no fear of your falling.

This is a very pretty exercise, and one in which I have always found my pupils excel, yet it would perplex many to do it, or how it was done, were they not acquainted with the proper method.

It should be done at least three times without stopping, and as many more as the gymnast may feel disposed to do.

The hands will have to change their position after every revolution.

103.—THE LEVER.

This exercise is described in No. 71, the only difference being in the position of the hands.

104.—TO HANG BY THE TOES.

Proceed as described in No. 102, and after grasping the ropes as high as will be deemed necessary, or the second loops may be grasped instead, throw the legs up and hitch them in the cross piece. (See *fig.* 57.)

The toes must be kept well pointed to the ground.

105.—THE TWIST.

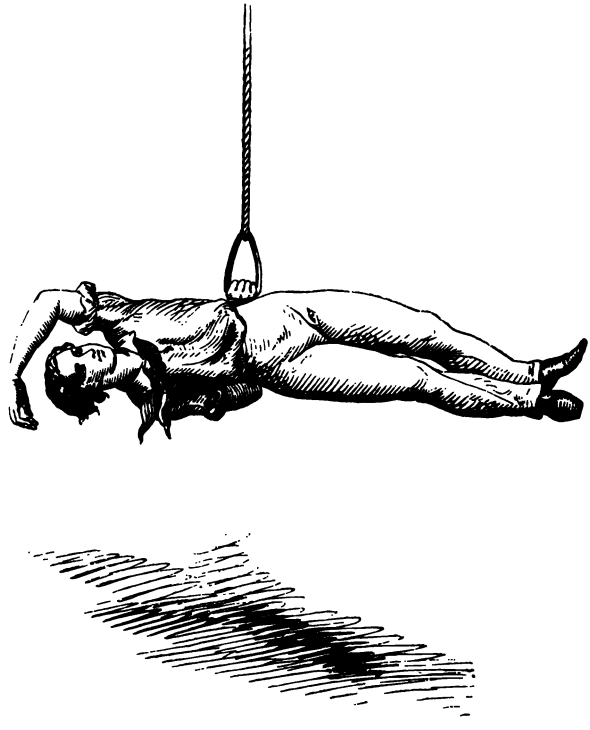
This is a very difficult exercise both to achieve and to describe.

Hang by the hands and throw the legs over; but before allowing them to fall too far, give the body a twist so as to bring the back (the nearer the middle of the back the better) against the arm towards which you turn, and in so doing, let go the other rope, and keep yourself suspended as long as agreeable. (See *fig.* 58.)

The legs and disengaged arm must be kept extended as far as possible, and the body must incline a little backward, for it to rest on the arm more securely.

Great practice is required before a beginner might be able to accomplish the difficult part of this exercise, as it not only tries the strength of the muscles of the arm, but the twist given at the shoulder, and the difficulty found in balancing the body evenly, causes many to abandon the exercise as *impossible.* But when a young gymnast has once achieved it, he will feel a pride in doing it before those who before deemed it *impossible.* I should therefore recommend patience and perseverance.

Fig. 58.



THE TWIST.

Fig. 59.

THE STRETCH.

106.—THE LETTER L.

This exercise is described in No. 15, the hands here grasping the loops instead of the bars.

107.—THE STRETCH.

After rising as high as possible, as in the last exercise, bring one hand to the front and stretch the other out (see *fig.* 59): the loop in the front must be grasped firmly, whilst the other is kept in the required position by the open hand, as seen above, the fingers being extended, and the whole strain falling on the hollow of the hand.

This should be done with both hands. The legs should be kept perfectly straight, or they may be made use of as if ascending a flight of stairs, the slower the better.

108.—THE CHANGE.

Proceed as last described, and after bringing one hand in front, let go the other, and keep yourself suspended for a short time; then grasp the other loop and do the same with that one, changing as often as convenient.

This is a very clever and amusing exercise, and one which should be persevered in.

109.—TO MOUNT BETWEEN THE ROPES.

This is another very trying exercise, but like No. 105 the shoulders will reap the full benefit.

Rise between the ropes as in No. 107, and with a sudden turn of the arms (one at a time at first) bring the elbows uppermost (see *fig.* 60), when you may gradually straighten them by raising the body.

This exercise should be persevered in until achieved, as it will enable the gymnast to be the better able to do the next.

110.—THE TURN-OVER.

Whilst mounted between the ropes as in the last, but previous to straightening them, this exercise must be done.

Lean forward, throw the legs (backwards) over the head, allowing them to fall to the ground, still retaining your hold of the ropes.

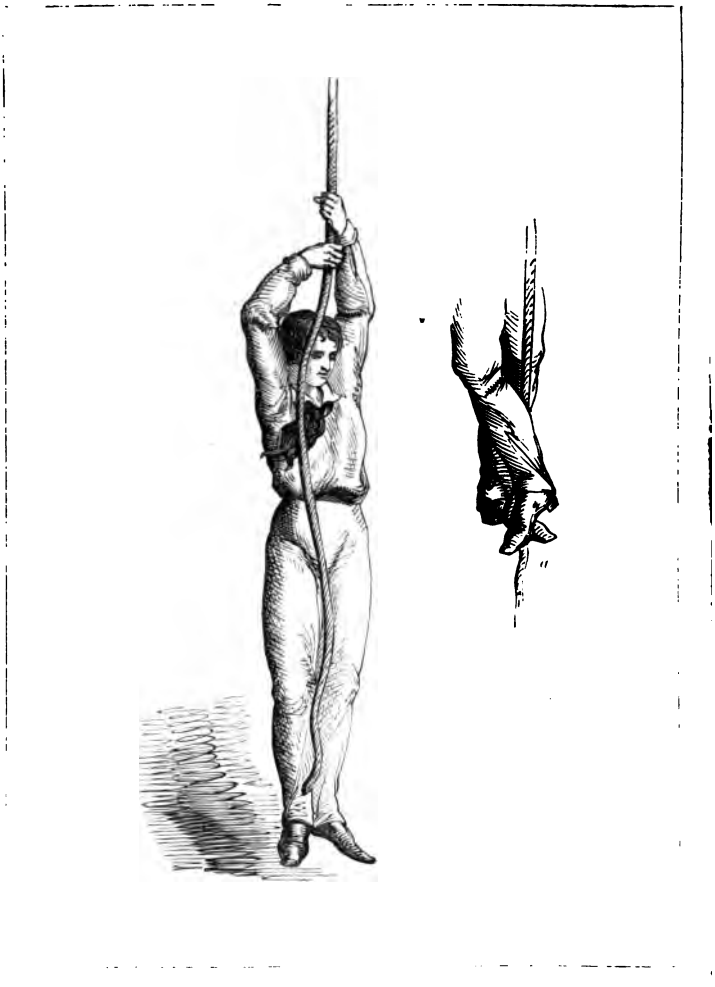
After a little practice let go the ropes on alighting on the ground, but be careful how you do it at first.

This is a difficult exercise, but perseverance will soon overcome the difficulty.

Fig. 60.

TO MOUNT BETWEEN THE ROPES.

Fig. 61.



TO CLIMB THE ROPE.

111.—TO CLIMB THE ROPE.

I have introduced this exercise here, as it will be required sometimes to reach the cross piece at the top, in lieu of doing either of the other exercises.

There are two ways of climbing the rope.

First.—Grasp the rope with both hands, and move them alternately one above the other, and in order to support yourself whilst so doing, the feet must be used by pressing the rope between them, as shown at *a*, *fig.* 61, where the feet are crossed, and the rope is pressed by the top foot against the under one.

Second.—Grasp the rope with both hands, and without the aid of your feet move your hands alternately one above the other, but in so doing the gymnast will have to make use of the rise and fall exercise with one hand only, whilst he raises the other.

These climbing exercises should be practised on a rope free from knots, and not too small.

On descending the rope, do so by reversing the motion of the feet and hands, or the hands only.

Avoid allowing the rope to slip through your hands, as the friction caused by so doing will be sure to rub the skin off, and perhaps cut the flesh to the bone.

112.—THE SPRING.

This exercise is somewhat similar to that described in No. 96, but it will be found a little more difficult at first to perform.

Grasp the ropes as in No. 96, and in bringing the legs over open them so as to pass one on either side of the ropes, which must be brought closer together (see *fig.* 62), then, when nearly over, let go the ropes and alight on the ground.

Do this exercise also with one rope only, when both hands must be in the same rope.

This is a very clever feat, but it must be done quickly to succeed.

113.—THE JERK.

Grasp the ropes, one in either hand, and throw the right leg over the right arm (as in *fig.* 63), or the left leg over the left arm, letting the other leg hang loosely in front. Now with a sudden jerk, and at the same time extend the disengaged arm a little, throw the body forward with as great an impetus as possible, when you will turn completely over, and in so doing you must not let go your hold, neither must the leg slip off the arm.

This is a very difficult exercise, and requires great nerve and practice for it.

Fig. 62.

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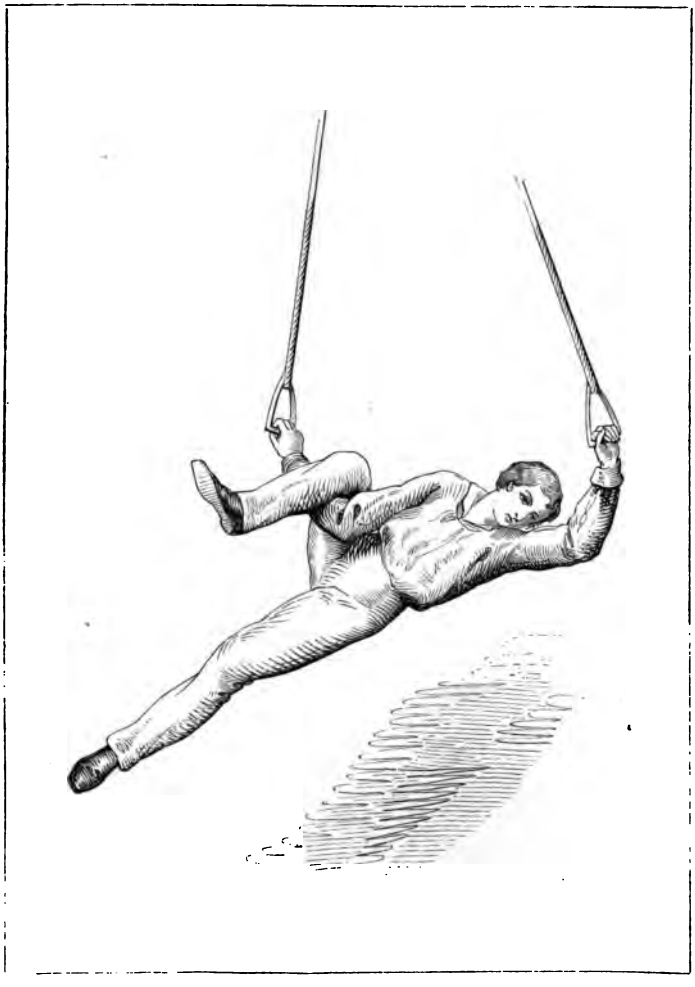
Fig. 62.

THE SPRING.

Fig. 63.



THE JERK.

Fig. 64.

THE DESCENT.

114.—THE DESCENT.

This exercise must be done on a single rope, and the higher it is fixed from the ground the better. It should be at least from fifteen to twenty feet long, and a 56 lb. weight should be attached to the lower end of it, which should be about a foot from the ground.

Climb the rope as far as you can, and let it hang in front of you and come down between the legs. Bring the right leg round the rope, and hitch the foot around it again; and having so done, bring the right arm in front of the rope (as in *fig.* 64), when you may descend very gradually, according to the strain put against the rope by the leg around it.

The other leg must hang loosely.

To give this feat a greater effect, the weight should be twirled round; this will cause you also to turn round as you descend.

The hands, whilst descending, should be placed in as graceful an attitude as possible.

INDIAN CLUB.

EXERCISES.

No. 1.

HOLD the smallest club in the right hand, and with the motion of the wrist only give a circular motion to the club; as from left to right, from right to left, from front to back, from back to front, as near as possible. The arm must be kept straight down at the side.

Repeat the exercise with the left hand.

No. 2.

Repeat the above exercise with the arm bent at the elbow, but the fore-arm must be kept perfectly still.

No. 3.

Hold a small club in either hand, and repeat the above exercise, allowing both the clubs to revolve the same way.

INDIAN CLUB EXERCISES.

No. 4.

The same exercise as last, but causing the clubs to revolve in opposite directions, thus: let the left hand club go from left to right, whilst the right hand one goes from right to left, or *vice versâ.*

No. 5.

Repeat the same exercise with the arms extended in front, at the sides, or straight over the head.

No. 6.

Repeat the last exercises, allowing the arm to be bent at the elbow.

No. 7.

Repeat the last exercises with the elbow as the centre of the described circle instead of the wrist, placing the arm in the several relative positions. (See plate.)

No. 8.

Exercise the arms in any of the foregoing exercises, with a large and small club at the same time, and one arm doing the same exercise as the other or different.

No. 9.

Describe a circle with one of the largest clubs (about the fifth size), giving the whole arm the required motion over the head, in front and at the side.

No. 10.

The same exercise with two clubs, and both arms to revolve in the same or in different directions.

No. 11.

Hold a club in either or both hands, with the arm bent at the elbow. Let the club lean on the shoulder first, then as low as possible, and with the motion of the wrist only carry the club out straight with the forearm. This should be done as if a blow were intended to be given.

No. 12.

Hold as large a club as possible, with the arm or arms extended in front or at the sides.

No. 13.

Whilst holding out a club with one hand, achieve any of the aforementioned exercises with the other.

No. 14.

Hold any of the clubs (the larger the better) in either or both hands, bring the hands up suddenly under the arm-pits, and drop them again as quickly as possible.

No. 15.

Bring the hands up under the arm-pits, and extend them suddenly in front or at the sides with the clubs upright.

No. 16.

Repeat the above exercises successively. The hands may be brought up under the arm-pits or to the shoulders, as most convenient, before proceeding with the next.

In performing the last three exercises the elbows must be kept as high and as far back as possible.

No. 17.

Hold a club in each hand with the arms extended at the sides, the hands to be kept as high as the shoulders, and the sides of the clubs, and if possible the hands, made to meet behind.

No. 18.

Achieve any of the foregoing exercises whilst standing on one leg.

No. 19.

Aim at any imaginary object with either of the largest size clubs, allowing the blow to be given as if to descend on a man's head, and when the club shall have reached

that imaginary point it is to be brought to a sudden standstill, as if something had impeded its progress, and there held for a short time.

This exercise should be done both in front and at the sides.

No. 20.

Repeat the above exercise with a club in each hand, the blows to be given both at the same time in front or at the sides, or with one in front and one at the side.

THE END.

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